

September 2016 | Issue 40

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

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QUARRYING RECYCLING BULK MATERIALS HANDLING





Whatever your industry, material or screening requirement, the Terex Finlay Spaleck range of mobile screeners with Flip-Flow technology separates them from the rest. From compost and topsoil to C&D waste, metal or glass, the processing and separation capabilities make the Spaleck range the ideal solution. And with nearly 50 years' experience, it's our product knowledge and customer support that separates us from the rest. So, if you want to join the real movers and shakers in your industry, talk to Finlay Group. For more information, give Finlay Group a call on 08000 355328 or email us on enquiries@finlay-group.co.uk.

TO FIND OUT MORE CALL OR EMAIL **08000 355328**

enquiries@finlay-group.co.uk



Finlay

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Too many exhibitions?

Now back in the office after three days at the NEC I'm again asking myself are annual exhibitions unnecessary? Having been there for the whole three days this year I've witnessed a slow Tuesday and Thursday, with Wednesday been the only busy day with a decent attendance.

Talking to people in Birmingham it's quite clear that the majority are in favour of a biennial show because there simply isn't enough innovation or new products to warrant an annual show! Costs also play a huge part in decision making whether to exhibit or not. Many a time I've listened to a conversation that went along the lines of – 'we just can't afford to come every year'.

Many shows these days, such as Hillhead and PlantworX have all adopted the biennial timetable, with clear results in exhibitor attendance. This year in particular we have had bauma and IFAT, which if you're a company that supports international shows then this year has been very expensive.

Hopefully the companies that didn't return this year will attend next year, but then if some of the companies who did exhibit this year don't return next year, then who knows...

Now what's next...oh Bulkex.

John Edwards Editor



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Sandvik Construction widens its offering of the QJ341 bestselling mobile jaw crusher to meet customer demand

Sandvik Construction Mobile Crushers and Screens are introducing new variations to the range with the launch of the new QJ341+ model and a wider choice of engines. More targeted to your needs, customers will be able to select the right machine for the job - the choice is yours.

QJ341+ recently launched at Hillhead is now in operation in Scotland



Flagship QJ341

The QJ341 is the flagship of the range and still one of the bestselling track mounted jaw crushers in the world today. The largest in the Sandvik Premium range of jaw crushers, the QJ341 features a large 1200 x 750mm jaw opening with hydraulically adjustable jaw setting to maximize your output. It has been designed to meet the needs of the operator seeking a high performance mobile jaw crusher which is both reliable and durable. With a large feed opening and unique crushing geometry it is capable of delivering high outputs with excellent reduction ratios.

The powerful jaw crusher is capable of handling the most challenging of guarry applications but equally capable in the recycling segment with its large under-belt clearances and is equipped with a hydraulic raise and lower facility on the main conveyor as standard. It is operated via hydraulic drive which enables the crusher to start under load and comes complete with a reverse crush facility. This enables the crusher to run full time in reverse, enabling easy removal of blockages with minimum downtime, and is therefore ideal for asphalt applications.





www.hub-4.com/directory/296





Fixed speed engine offers easier operation

With the introduction of Stage IV/Tier 4 Final Emissions legislation in January 2014, this brought about the requirement to use AdBlue in order to reduce exhaust emissions. Many of our customers however didn't want the hassle and inconvenience of having to use AdBlue, EGR and injection systems. They wanted a less complex and easier to maintain solution to suit their crushing requirements. We listened to our customers, took the feedback on board and decided to offer a CAT fixed speed engine to resolve these issues. This back-to-basics engine is simple to use, requires less maintenance and generates more horsepower.



Greater efficiency with new pre-screen

We have introduced a new addition to our 341 jaw crusher range with the launch of the QJ341+. This new model incorporates a double deck pre-screen which features a stepped grizzly and a highly aggressive independent vibrating feeder designed to work with the most difficult and robust material. This, along with a number of other new features, including a telescopic natural fines conveyor and three position by-pass chute, means that the QJ341+ delivers greater efficiency, reduced wear and ultimately higher productivity, particularly in applications with a high fines content. Also suitable for recycling applications we offer a blanking rubber which replaces the screen mesh and is ideal for handling reinforcing bar.

We believe that this wider choice to our already bestselling jaw crusher range will strengthen our offering and enable us to deliver solutions which are more specifically tailored to our customers' needs.



M2500 & AquaCycle

Modular, mobile washing plant with integrated water recycling delivers:

Rapid Deployment.

Reduced Plant Footprint.

Reduced Waste Volumes.

Increased Health & Safety on Site.

90% Reduction in Water Volumes.





Kubota, the leading compact construction machinery manufacturer, has unveiled its latest edition KC250H-4 tracked carrier, with the new model set to raise the bar with its three-way tip capability.



The Kubota KC250H-4 is a truly versatile machine, with the trilateral loading vessel holding the ability to unload on three sides, offering operators unrivalled flexibility. Still retaining the same maximum load capacity of 2,500kg and 1,33m3 as the original model, the three-way tip is possible due to two non-interchangable pins, resulting in the same quality of tip discharge on the left, right and rear of the machine.

Thanks to a innovative and robust system of linkages and combination locks, the Kubota KC250H-4's three sideboards can be opened automatically during the discharge process, resulting in assurred job accuracy and time efficiency. The ergonomically designed control station allows the operator to manage this discharge process by using a touch sensitive tipping lever. The sideboards can also be opened manually also, allowing for easy loading if using a pallet fork.

The KC250H-4's innovative functionality has not affected the machine's durability and strength, with the robust undeframe

boasting two fixed and four oscillating rolls ensuring great stability on slopes and irregular terrain. This is all supported by the machine's water cooled Kubota diesel engine, which ensures high torque and power (45.5 PS at 2,300 rpm) whilst delivering optimum fuel efficiency to minimise operational costs and environmental impact.

Neil Winfield, Kubota UK's Construction's Business Development Manager, commented: "At Kubota we are constantly looking to push the envelope in machine innovation, delivering new functionality that enables improved jobtime productivity, whilst not compromising on the product reliability the brand is known for. The new Kubota KC250H-4 delivers on all these fronts, with the three-way tip giving endusers unrivalled flexibility that will significantly reduce jobtime.

"We also place highly the value of operator comfort, and the KC250H-4's operating station offers best-in-class ergonomics, with a deluxe reversible seat that allows the operator to turn 180° and face the opposite direction. The travel leavers are attached to the seat, which means operation is seamless, creating safer, more efficient and productive work station.

"These operational machine features are underpinned by the Kubota's powerful and EU stage IIIA approved efficient engine, which as a package gives the best possible return on investment for the owner or contractor."

The machine has a 55° tilting angle, with attack angles of 27° and 57° (61° for the three way dump) and a ground clearance of 334mm that allow it to traverse the most rough terrain.

Health and safety is also treated as paramount importance, with the KC250H-4's ROPS, safety belt and non-slip step enabling maximum safety for the operator. In terms of maintenance, the machine's large bonnet on top of the engine allows easy access, whilst a side panel gives simple access to the air filter.







Do you need screen mesh? Are you tired of being asked for mesh measurement details? Do you want it tomorrow?

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Are you looking for conveyor rollers?

The Harpscreen site in Dungannon, Northern Ireland has over 10 years' experience as a specialist manufacturer of conveyor rollers and idlers; producing products that are suitable for machines manufactured by Terex, McCloskey and Sandvik.

In addition, Harpscreen has recently acquired the manufacturing equipment division of ESCO Hydra Ltd. This has enabled us to increase our manufacturing capacity by over 200%!

Harpscreen is now the first choice for all your conveyor roller needs, all underpinned by unbeatable customer service.



Call us today on 028 8772 7273

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Improved safety and flexibility for your hydraulic quickcoupler

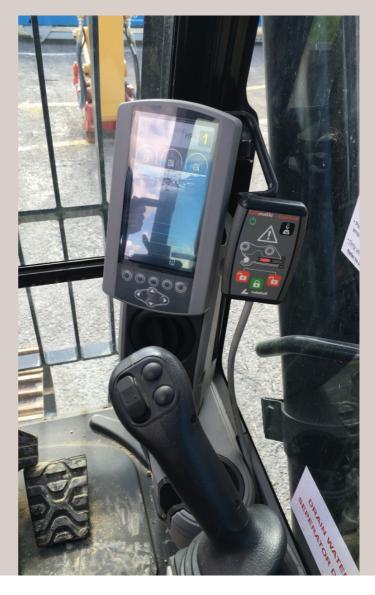
Worsley Plant are pleased to introduce to the UK a new safety feature from Lehnhoff - the Lehmatic Safety Control. Lehmatic Safety Control (LSC) is a high-quality assistance system that makes locking your hydraulically operated quickcoupler even safer, with maximum flexibility and comfort and added peace of mind.

LSC prevents unintended triggering of the coupling procedure. The system is operated from the safety of the driver's cab, and therefore the driver always has a clear overview of all coupling statuses. Two sensors monitor the coupling process on the lock plates and the locking pin independently. This ensures that the attachment is safely and correctly in place at all times. Safe two-finger operation is required for the unlocking function.

Should the coupling process experience a malfunction, the LSC will automatically detect it and signal the driver. Safety is therefore ensured at all times. LSC also detects if the wear limits are exceeded, or if there is signal interference within the system. Load hook mode is used for hoisting without an attachment.

Lehnhoff Quickcoupler Systems with Lehmatic Safety Control are available for almost every excavator size.









New appointments at Bollegraaf Recycling Solutions

Bollegraaf Recycling Solutions have appointed Trevor Smart as their Country Manager and Luc Mallinger as their UK Sales Manager to lead the development of Bollegraaf in the UK.

Trevor and Luc both have a very strong background in the waste and recycling sector. Trevor has come from a very well established MRF supplier and Luc from an optical sorting background. Peter Bos, International Sales Director, says, "I am delighted to announce, following a competitive assessment process from an exceptional field, the appointments of Trevor Smart and Luc Mallinger to the Bollegraaf Team. They bring a wealth of expertise and experience to the roles which will ensure the long-term development of our company."

Trevor Smart added, "I am very happy to be joining Bollegraaf UK; their solid background in waste and recycling products and their new approach will bring new ideas to the UK market." Luc also adds, "This is a great, exciting opportunity and my expertise in optical sorting technology will give our customers a more in-depth knowledge in a key area of their process and help us build more cost-effective MRF's."



Real-time fuel savings for any application.



* Average data from Lidat from 02.02.2016

Discover our new energy efficient machines and find out your savings potential with our fuel savings calculator. Here you will find up-to-date live data from LiDAT for all Liebherr energy efficient machines and you can compare fuel consumption with the machines in your fleet. Scan in the QR code and start calculating.





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Raymond Browns recent investment, Ardley IBA Processing Facility

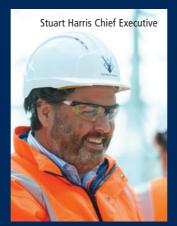
Management buyout at Raymond Brown Minerals & Recycling Ltd

Hampshire-based
Raymond Brown
Minerals & Recycling Ltd
(RBMR) has announced
the completion of a
management buyout by
its senior management
team along with new
investment partners,
Elysian Capital II LLP.

RBMR are a leading regional integrated aggregates and recycling business operating across Hampshire, Dorset, Wiltshire and Oxfordshire with a strong reputation for environmental responsibility. Under the leadership of Stuart Harris (Chief Executive) and Steve Clasby (Chief Operating Officer), multi-million pound investments have been made across its 12 site portfolio over the last three years, driving group sales in excess of £30m.

The buyout comes as RBMR identifies significant further growth opportunities across each of its business streams. RBMR will continue to develop its strong asset base, creating a number of new jobs as the business grows, by taking advantage of strategic regional mineral reserves, waste recycling opportunities and further developing its presence within the high growth incinerator bottom ash recycling market

Elysian Capital are a UK private equity organisation who provide investment funding for businesses with significant growth opportunities.



Edward Brett, a partner at Elysian Capital said: "The RBMR team have done an excellent job in developing a business with real strategic positioning and in putting a focus on the quality and long-term nature of what they do. There are some very exciting opportunities to build on the foundation created, and the team has a real ambition for achieving significant growth."

Stuart Harris, Chief Executive of RBMR, said: "The transaction was a complex process and I felt that Elysian grasped quickly what makes RBMR so special and the nature of the opportunities ahead of us. We have a clear vision and a number of exciting investment and growth opportunities within the organisation and under this new structure."



DUO announce two new management appointments

DUO plc have announced two significant management changes -Luke Talbot has been appointed Group Managing Director.

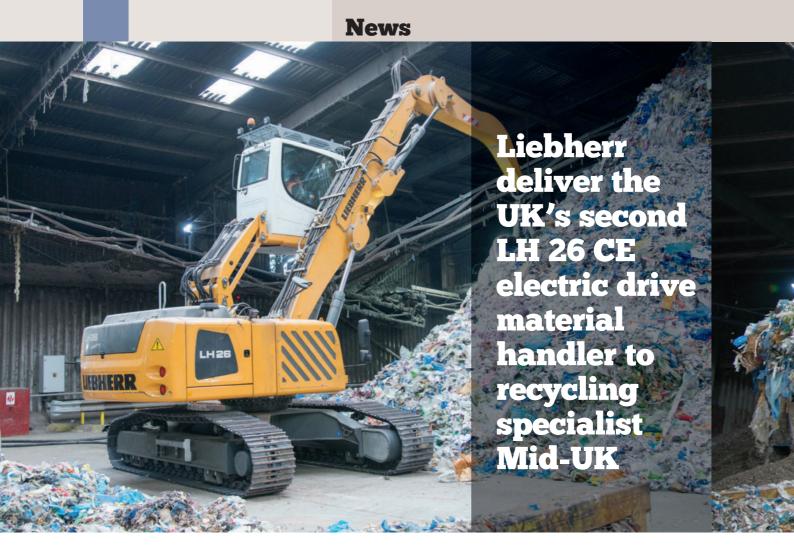


Luke has been with the company for 14 years, previously holding the position of DUO Africa Managing Director since 2011; in that time Luke has developed a very successful overseas business. He will in his new role bring years of professional experience in washing, crushing and screening operations.



A second appointment has seen John Bracken promoted from Operations Manager to Group Operations Director. John has been with the company for 17 years and brings strong technical knowledge and extensive operating experience to his new role.





Liebherr Great Britain has recently delivered the UK's second LH 26 CE electric drive material handler to recycling specialist Mid-UK of Sleaford, Lincolnshire. A third is to follow later this year, as part of an order for seven electric LH 26 machines for Mid-UK, who already run a Liebherr biased fleet to handle a huge variety of waste from around the country.

The use of electric power for excavators has mainly been confined to large mining excavators but there are certain applications in the UK where the use of electrically powered machines is being championed. The waste industry has been an early adopter of this technology with static mounted plant being electrically powered for many years.

Already operating a large fleet of Liebherr material handlers and wheeled loaders, Mid UK has been impressed with the reliability and extremely low fuel consumption of its existing diesel engine fleet and was quick to order the new electrically powered 25 tonne crawler machines in a bid to reduce fuel consumption even further.

Whilst a number of Liebherr wheel loaders are used in various applications at Mid UK's different processing plants, the fleet of crawler and wheeled material handlers operates predominantly within the confines of a building.

The nature of the waste handling industry dictates that machines may sit idle for a percentage of their working day due to processing machinery or incoming loads being delayed for various reasons. Diesel powered handlers sitting on tick-over for up to 50% of their working lives do not represent the most cost effective operation. This excessive idling time, coupled to the fact that each machine consumes diesel whilst idling, swayed the management team at Mid UK to look at alternatives for its materials handling operations.



The Solution:

Constructed around a standard material handling variant of the company's 24-25 tonne LH 26, the CE version sits on 2.4 metre crawler undercarriage offering exceptional stability even when working at maximum radius across the tracks.

There is now a 110 kW electric motor in place of the diesel engine. The exhaust pipe has gone as has the diesel tank to the offside, now replaced with a large reversible fan to ensure the motor and cooling systems are kept at the lowest working temperatures at all times.

An opening panel behind the cab allows pedestrian access to the top deck whilst the large rear panel, which traditionally accommodates the cooling pack, now houses the electrical cabinet. Weather protected to an IP55 rating the cabinet houses the main contactors for both the undercarriage and upper structure plus the starter for the motor.



From the top working platform, the "engine" cover is simply lifted up on gas struts to give easy access to the top of the 110 kW induction drive electric motor which achieves full power at a very low 1489 rpm. The dedicated 400 v supply comes via a large cable affixed to the undercarriage and fed through the centre of the slew ring, this particular machine has been equipped with enough slack in the cable to allow it to work from two operating positions allowing a large degree of flexibility.

The hydraulically raising cab gives the operator a much improved sight-line across the working area. The Liebherr cab, which comes in for praise from all quarters, is almost identical to that of the standard machine apart from the addition of a small colour monitor to the operator's right hand side. Positioned above the standard Liebherr monitor this additional screen displays information for the dedicated electrical system. Ample storage is included and a generous space is available behind the air cushioned operator's seat. The quiet motor provides an almost noiseless working environment of 71 dB inside the cab and 100 dB in the surrounding area.

The hydraulic operations for the LH 26 CE are a mirror image of those found on a diesel machine. The joysticks with standard proportional control via 4-way mini joysticks improve functionality and increase operator comfort.

The LH 26 CE is available with a wide range of material handling boom and dipper configurations. Mid-UK has specified the GA10 attachment which comprises a 6.1 metre straight boom and 4 metre angled stick. With this configuration a GM65, 0.6m³, 5-tine grab has been fitted and gives the outfit a maximum reach of almost 11 metres.

The Benefits:

The LH 26 CE's LiDat figures show a significant reduction in the operating time compared to its diesel counterparts. The lack of a diesel burning motor also provides huge benefits in keeping a safe working atmosphere within the building. Far exceeding the current Tier4 final requirements, the electric handler does away with the need for expensive and complicated exhaust gas cleaning systems therefore reducing the weight of the upper-structure.

An additional benefit and one often associated with the waste industry is the challenges in keeping the engine running at a safe temperature. Prone to overheating because of blocked cooling systems, material handlers of all makes are often fitted with reversible fans to clear out debris stuck to the radiator cores. Thanks to a cooler running electrical motor, the LH 26 CE can be operated for much longer periods of time without out the need to clear out the cooling pack. The reversing system on the LH 26 CE allows for particles of waste to be blown free at any time whilst the machine is still in operation.

Mid UK's first LH 26 CE has worked in excess of 2000 hours and has proved to be a faultless machine providing the clean, efficient and highly productive operation required by the company. The LH 26 CE has been widely accepted by both operators and management as the way forward for the Mid UK's operations.





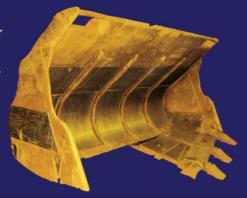
NEED A BUCKET REPAIR?

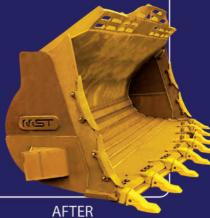
MST offers a complete bucket repair service for all sizes and types of buckets for both excavators and loading shovels. The materials used in the bucket repairs either match or exceed the quality of the original bucket and MST guarantees a fast turnaround to avoid machine downtime.

Loan buckets can be offered for some machines and a collection and delivery service is available.



NEED URGENT ASSISTANCE? CALL 0845 838 0706





Pronar announced as the new Franchise for Taylor & Braithwaite Ltd

Taylor and Braithwaite Ltd are excited to announce the introduction of the Pronar Recycling Machinery range to their product portfolio.

Pronar's worldwide presence

Pronar was founded almost 30 years ago in Poland. From it's simple beginnings it now has more than 2,000 employees working throughout their 6 factories. The company produces and sells machinery and equipment for agriculture, municipal services and transportation. It is one of the world's largest players among the manufacturers of wheels for agricultural and municipal machinery, pneumatic and hydraulic systems, axels for trailers as well as steel profiles and plastic components.

Pronar has built its reputation on 4 key beliefs - High Quality, Reliability, Durability and Flexibility. The award winning company is continually working on innovation and production efficiency and prides itself in investing in the development of Global Products.

Now available from Taylor & Braithwaite Ltd

The addition of Pronar's Recycling Equipment range has added Mobile Trommel Screens and Slow-Speed Shredders to expand the quality equipment that T&B can now supply.

The mobile trommel screens effectively separate a range of materials into different sizes. The solid design and simple principle of operation means that this machine is perfectly suited for work with various materials, including soil, compost, municipal waste, coal, aggregate and biomass. The drums can be easily changed to suit material screening requirements. The sorting trommel can be specified to customer requirements ie. round or square holes or different plate thicknesses.



The slow speed shredder is a universal device for processing various materials including municipal solid waste, construction and demolition debris, tree stumps and much more. One of the many advantages of this machine is its mobility with the machine being able to be moved by trucks or construction vehicles. The shredding is performed by two synchronized shafts located in the main chamber. Remote control comes as standard and the shredding chamber has inspection doors on both sides.

T&B's Sales Director Ian Burton commented "the introduction of Pronar to our product portfolio strengthens our ability to supply well built, quality equipment to the Quarrying and Recycling Industry. We are excited to be able to supply these products and Pronar's beliefs of high quality, durability, flexibility and reliability match our own"

For more information on the Pronar range that is now available, please call us on 017683 41400



Terex[®] Minerals Processing Systems making big tracks!

Terex Minerals Processing Systems (MPS), will launch its 'Making New Tracks' large mobile plant strategy in North America at the forthcoming MINExpo International Show in Las Vegas, on 26 - 28 September 2016 at Booth 3379.

Terex MPS Market Area Director for Americas, David Quail, commented: "We are excited to be able to launch this new product strategy at MinExpo. We have three new large tracked mobile plants which enable Terex MPS to diversify further from our modular, portable and static offerings. With over 100 years in the industry we now have a strong product portfolio offering customers from a wide range of industries, cost effective solutions for the long term".

About the products

LJ5532 - Large Tracked Jaw Plant

The LJ5532 has the world renowned Terex JW55 single toggle heavy duty jaw crusher mounted on a tracked chassis. This hydraulically adjusted jaw crusher, requiring no shim packing, allows the CSS of the jaw to be adjusted in a matter of seconds.

This highly mobile jaw crusher boasts an advanced, user friendly, control system and an efficient hydrostatic drive, which allows the end user to vary the jaw speed on the fly and even run the jaw crusher in reverse as per particular application demands, such as recycled asphalt. The powerful hydraulic drive can also be used to unblock the jaw if the plant has been shut down fully loaded.

The LJ3255 features an independent prescreen, located before the crusher, which helps bypass or remove any undersized material or feed material that has a high content of dirty fines, thereby promoting maximum throughput performance from the jaw crusher as well as enhancing the heavy duty manganese wear life.

This impressive tracked plant is run by the proven Scania DC13 Tier 4 water cooled diesel engine, and is transported in one load. Below are just some of the key optional features available with this plant:

- A hydraulically folding, telescopic bypass conveyor, which is mounted below the independent prescreen. This conveyor, which has an exceptional discharge height, allows the prescreened material to be stockpiled off the side of the plant.
- 2. Heavy duty, high strength, cross belt magnet conveyor. Which helps remove any steel contaminants from the discharge conveyor before the material is passed onto the next processing stage.
- A radio remote that can be used to track the plant as well as starting and stopping the crusher feed from the cabin of the feeding excavator.

LC450 - Large Tracked Cone Plant

The LC450 incorporates the world leading Cedarapids MVP450X all roller bearing cone crusher. The MVP450X cone crusher is well known in the industry as being unmatched when it comes to producing high spec products, with exceptional shape, with output capacities that leave all competition in its wake. The cone crusher also includes a hydraulic, maintenance free, anti-spin device that helps improve cone liner wear life, as well as a hydraulic tramp overload protection system, TIR, that helps clear the crushing chamber of any potential tramp metal that may have entered the crusher with the feed material.





The LC450 tracked cone crusher also incorporates an automated metal detection system, located on the heavy duty feed conveyor, which stops the conveyor before the metal contaminant reaches the crusher. The plant also has the patented metal purge system that dramatically reduces downtime when removing the metal contaminate from the feed conveyor.

The MVP450X Cone crusher is driven via V-belts by the powerful Caterpillar C18 Twin Turbo engine. The crusher eccentric speed can be adjusted, via the engine rpm, to best suit the given application and feed material.

The plant also features a cone hopper level sensor, which can be controlled via the plant control system, which is used to regulate the speed of the feed conveyor to ensure that the feed hopper above the cone crusher is kept consistently full. The process is made far more convenient with the onboard video camera, mounted above the cone crusher, giving live images of the material entering the chamber.

LV2050 - Large VSI Tracked Plant

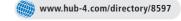
The LV2050 is a high capacity tracked Rock on Rock, ROR, Canica 2050 VSI crusher, which features the new patent pending hydraulically controlled dual flow system. The Dual Flow system helps elevate the crusher's throughput capacity without increasing the overall drive power.

This large tracked Vertical Shaft Impact Crusher utilizes the same chassis and powerunit as the equally impressive LV450, incorporating many of the same impressive features.

The New Canica 2050DF VSI "broke the mold" when it comes to throughput capacity, superior product quality and all round product control. The heart of the VSI is the 6 port heavy duty closed rotor. The rpm of the rotor is controlled by changing the engine speed. The crushing chamber's rock shelf is easily accessed through the side door, which also helps speed up maintenance checks on the rotor.

This impressive tracked VSI is ideal for applications that demand the best product shape and quality, with a throughput capacity that can only be admired.

David Quail added: "The new product lines being launched in North America will serve an increasingly diverse range of materials handling sectors. The AggreScalpTM unit brings operators a well proven, cost effective and durable machine in a modular all-electric format. This is ideal for C&D recycling applications as well as quarry and mine overburdens and integrates seamlessly with other key TWS systems including AggreSandTM and AggreScrubTM. The UltraFinesTM will tackle the increasing demand for fines recovery within numerous facets of the washing industry."





KOMATSU

Call the experts® for a high efficiency wheel loader.



Komatsu WA270-7 Wheel Loader - More power, less fuel.

Highly versatile, the Komatsu WA270-7 is a perfect mix of power, comfort and reliability. On-board, the "Komatsu SmartLoader Logic" engine control and an advanced hydrostatic drive line offer exceptional traction and ultra-low fuel consumption. Built around the latest engine technologies for emission control and lower fuel consumption, Komatsu's WA270-7 wheel loader continues a long tradition of uncompromising comfort, quality and total customer support, while renewing Komatsu's commitment to safety and environmental protection. With the unique Komatsu CARE complimentary support package as standard, Komatsu wheel loaders keep their promises of excellence and set a new efficiency standard for the industry.























Blue Spares doubles sales team and reports spectacular growth



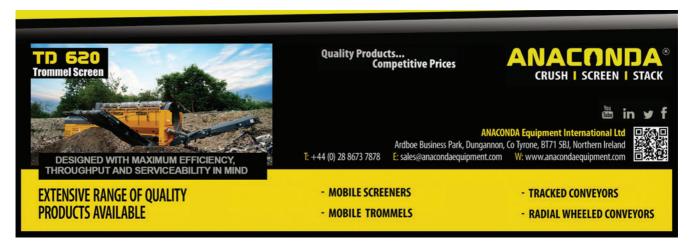
Blue Spares is the essential provider of genuine OEM spare parts for the main market-leading distributorships of parent company Blue Group - Powerscreen and Doppstadt. Since inception some 13 years ago, Blue Spares has consistently made large investments in storage premises, ever-increasing parts stockholding, fully automated and computer controlled stock picking systems and despatch processes and qualified, experienced personnel, in order to provide the very best proactive product support service to their expanding customer base.

The Company reports outstanding growth in 2015 and a significant recent investment in more sales personnel, effectively doubling the sales team. This influx of skilled and experienced sales staff further enhances the personal service available to Blue's customers. Full product training and continuous career development programmes ensure that Blue Spares personnel can provide the kind of proactive, knowledgeable, technical product support on which customers can rely.

With an impressive spares holding now exceeding £3 Million – held at Blue Spares' Warrington headquarters and Blue Scotland's modern new premises in Stirling – plus over 13,000 line items available off the shelf at any one time, Blue Spares is well positioned to ensure that their product support is second-to-none and that "downtime" is eradicated from their customers' dictionary! The company has developed a "24/7" network spares service for UK customers and provides a genuine 24-hour parts turnround. With this kind of commitment to product support, investors in plant and machinery marketed by Blue Group can be assured that the after-sales backup matches the build quality and productivity of the capital equipment.

Blue Group firmly believes that the sale of a machine is "just the beginning" and with an enviable portfolio of high quality, market-leading product distributorships, after sales product support has to reflect the engineering excellence of the original equipment. Blue Spares certainly does that!



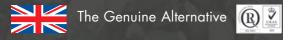




Premium crusher parts

by the leading crusher service provider









Mucon will display their extensive range of powder handling valves and material discharge aids at Bulkex

Mucon will have on its stand at the BULKEX exhibition examples of its extensive range of powder handling valves and material discharge aids which include;

 RGV pneumatic Slide valve. (Square or Rectangular outlets). The RGV range of Slide valves can be supplied in a wide range of materials and finishes to suit even the most arduous of tasks.

 Mucon Iris valve ranges can be manually, electrically or pneumatically actuated – Ideal for controlling the discharge flow of powders, capsules, granules etc.

 Promoflow range of discharge aids offer a retrofit solution for 'bridging' and 'rat-holing' issues in hoppers and silos. In comparison to other material discharge aids the Promoflow is quiet, only vibrates the powders and not the vessel, uses less energy and is quiet in operation.

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A Weidemann 2070CX50 compact wheeled loader has been delivered to the Purbeck based Lovell Stone Group for use at its recently acquired Hartham Park underground quarry in Corsham, Wiltshire.

Lovell Stone owns and operates a total of five quarries across SW England and the new facility will produce premium Hartham Park Bath stone with a potential capacity of up to 4000 cu m/annum which will be supplied to masonry companies throughout the UK.

As part of a major capital investment program at Hartham Park, the Weidemann articulated loader is a small but important element. The previous operator of the quarry had used a skid steer loader for the lighter duties involved such as moving small blocks of stone and general fetch and carry duties but, following trials of various machines, the Weidemann unit was chosen as Lovell Stone felt it offered a much better combination of lift capacity, stability and robust build quality.



The quarry workings at Hartham Park are some 20 m underground and the only access is via a steep ramp up which stone blocks are winched on a wheel-mounted trolley. Unlike some of the larger equipment used in the mining operation, the Weidemann machine was small enough to be lowered down the shaft without the need for dismantling.

Commenting on the choice of the 2070 for this arduous application, Lovell Stone Group's managing director Simon Hart said: "We are really pleased with the machine which besides being very well engineered and having an excellent power to weight ratio, came with a three year warranty which was very appealing to us for peace of mind during the early years of operation on the new site."

Supplied by local dealer New Forest Farm Machinery, the 2070CX50 supplied to Lovell Stone is powered by a Perkins diesel engine developing 35.7 kW (49 hp) @ 2600 rpm driving all four wheels via a two stage 20 kph (12.4 mph) hydrostatic transmission. Weighing in at 3270 kg, the machine offers a maximum tipping load of 2058 kg and a maximum pivot point reach of 3222 mm.



New CDE Global modular sand & gravel washing plant for Raymond Brown at Roke Manor quarry in Hampshire

Final commissioning was recently completed on this new CDE Global modular sand & gravel washing plant at Roke Manor quarry in Hampshire. The site is operated by Raymond Brown who currently have eleven locations across Hampshire, Dorset, Wiltshire, Oxfordshire and Berkshire. Roke Manor quarry is the latest addition to the group portfolio having been officially opened by Group Chairman, Ron Isaac in November 2014.

"The new site was seven years in development and planning permission was granted in 2011" explains Richard Hoare, Project Manager at Raymond Brown. "Our licence will see us extract 750,000 tonnes of sand and gravel at a rate of 125,000 tonnes per year."

The permission is accompanied by a 30 year woodland management plan which involves additional tree planting in line with an approved landscaping plan that formed part of the planning permission. The site is located 11 miles from Southampton on the outskirts of the New Forest and it was the sensitivity and environmental responsibility displayed by Raymond Brown which resulted in the successful planning application.

Speaking about the Roke Manor development Steve Clasby, Chief Operating Officer said "This is an exciting new opportunity for Raymond Brown. We pride ourselves on our sustainable and pro-active approach in dealing with our environmental, social and economic impacts."

The CDE plant

The new washing plant at Roke Manor will process sand and gravel at a rate of 80 tonnes per hour and includes several items of equipment from the CDE portfolio including the AggMax modular logwasher EvoWash sand washing plant, AquaCycle thickener and decanter centrifuge as well as a feed hopper and transfer and stockpile conveyors.

Material is delivered to the plant via the M14 feed hopper with 150mm grid spacings. CDE conducted extensive material testing prior to specifying the plant and the vast majority of material being processed is in the minus 63mm range with 80% typically passing 20mm.

"Raymond Brown were looking for performance guarantees that gave them confidence in the capability of the plant to tackle high fines and clay content in the feed material and produce a range of washed sand and aggregate products that would meet their customers' requirements" explains Chris McKeown, Technical Manager at CDE. "Our performance statement covers the production of a range of products from the new plant to agreed specifications: 0-4mm concrete sand, 0-2mm building sand, 4-10mm, 10-20mm and 20-40mm aggregates and a +40mm oversize."

This agreement was reached after extensive material testing at Roke Manor to establish parameters around the likely variations in feed material within the deposit. "It is only through the extensive material testing that we conduct on every project that we are able to deliver washing plants which deliver on our customers' requirements through the





production of consistently graded washed sand and aggregates" explains Matt Bunting, Director of Business Development in the UK for CDE. "This allows us to work with customers on the kind of performance statements included on this project for Raymond Brown."

The feed material is transferred to the first stage of processing via a 23 metre conveyor with an 800mm belt. At the head of this conveyor a washbox fluidises the material before delivery to the AggMax modular logwasher.

Before material enters the AggMax a double deck horizontal screen is employed as a pre-screen to remove the +40mm oversize material and the -4mm sand from the feed material. The +40mm oversize is stockpiled in a bay underneath the AggMax via an integrated 4m horizontal conveyor with a 650mm belt. The feed material contains an average of 9 tonnes per hour of this oversize material.

While the top deck of the screen removes the oversize material the -4mm material falls through the bottom deck of the screen and is sent to the sand washing phase. This is an important step in protecting the plant explains Matt Bunting. "Logwashers and sand are not a very good combination as if



the sand is allowed to get into the logwasher it will result in excess wear on the machine. By removing the sand fraction at this stage we are able to protect the machine, ensuring maximum plant availability and allowing Raymond Brown to maximise their production volumes and the return on their investment."

Material from the bottom deck of the pre-screen is delivered to the AggMax modular logwasher at a rate of 47 tonnes per hour on average where the material is subjected to high levels of attrition before being discharged to a triple deck sizing screen which is integrated onto the AggMax chassis.

The AggMax is one of the most popular products that CDE offer and is specified on a range of projects from sand & gravel and crushed rock processing to C&D waste recycling and iron ore processing. "The design of the AggMax has been refined over the last 10 years to ensure it continues to offer our customers the highest level of scrubbing performance while also including a range of design features which ensure it is operational for as close to 100% of the time as possible" explains Product Development Manager at CDE, Glenn Sloan. >



The most obvious design feature of the AggMax is the arrangement of the paddles in a fan configuration which not only maximises the material on material impact within the machine but reduces shock loads on the bearings to deliver extended equipment life and a reduced power requirement.

The AggMax also features enhanced bearing protection with the main bearing housings located on the outside of the machine. "The AggMax bearing arrangement features 13 levels of bearing protection to eliminate the potential for material and water ingress — protecting the machine and ensuring our customers are able to concentrate on meeting their production targets" explains Glenn Sloan. There is also a bearing temperature sensor which has the capability to automatically shut down the plant if the temperature goes beyond a defined level, maximising equipment life and minimising the time required for essential plant maintenance.

The scrubbed aggregates are discharged onto an integrated triple deck sizing screen to produce the 4-10mm, 10-20mm and 20-40mm aggregate products. These are then stockpiled via three 15m stockpile conveyors with 650mm belts.

Any fines liberated from the aggregates during the attrition phase are combined with the 0-4mm material removed at the pre-screening stage and delivered to the EvoWash sand washing plant. The EvoWash produces two sands for Raymond Brown, 0-4mm concrete sand and a 0-2mm building sand.

"Due to the relatively high level of fines in the feed material it is necessary to produce two sands in order to ensure production of a concrete sand spec" explains Chris McKeown. "There is a lot of material in the 0-2mm range and the first stage of classification involves the removal of some of this material to allow production of the concrete sand."



The material is first delivered to a 500mm cyclone and the cyclone underflow is discharged onto the first side of the split EvoWash dewatering screen. The dewatering screen is set up to allow some of the 0-2mm material to fall through to the sump and this is then pumped to a bank of three 250mm cyclones. This not only achieves the required removal of the minus 63 micron fraction but delivers a slurry containing the 0-2mm material to the second side of the split dewatering screen before this is stockpiled.

The waste water containing the minus 63 micron fraction is then delivered to the first stage of water treatment and recycling where the AquaCycle A200 thickener is deployed. The AquaCycle accepts the feed from the cyclone overflow by gravity feed and at the entry point to the thickener it is dosed with flocculent that has been pre-mixed in the integrated FlocStation.



The flocculent causes the very fine particles to bind together and sink to the bottom of the AquaCycle tank while the clean water overflows the peripheral weir and is stored in a steel water tank for recirculation to the washing plant. This recycles 90% of process water and reduces the fresh water requirement to top up only.

"Fresh water for use on the new CDE plant is limited" explains Richard Hoare of Raymond Brown. "Without the integrated water recycling and sludge management system it simply would not have been possible for us to proceed with this investment in the new washing plant and CDE were able to demonstrate significant experience and capability in this area."

The sludge at the bottom of the thickener tank is conditioned by a set of rakes which rotate around the bottom of the tank. The helps to ensure that the sludge can be easily discharged from the tank but also provides the mechanism by which the automatic sludge discharge function is activated. Once the rakes encounter a specific level of resistance this activates the sludge pump and this is then discharged into a circular steel buffer tank with a capacity of 106m³.

As with the AquaCycle thickener, the sludge buffer tank is also fitted with a set of rakes which, as Chris McKeown explains helps to optimise the performance of the decanter centrifuge. "In order to ensure best performance from the decanter centrifuge it is essential that the density of the sludge is consistent. The rakes in the buffer tank help to maintain this consistency which ensures maximum dewatering of the sludge for maximum water recovery and minimum waste volumes."

After the sludge has been dewatered a screw conveyor discharges the filter cake to a bay below the centrifuge enclosure. On this plant the centrifuge is sized to accept delivery of 8 tonnes per hour of solids.

The new CDE plant at Roke Manor quarry is operational for 10 hours per day but the decanter centrifuge will run for an additional 2-3 hours per day after material processing has stopped. This helps to clear the sludge buffer tank in advance of the next day's production. "The advantage of the centrifuge decanter in this instance is the capability for continuous, unmanned operation" explains Matt Bunting of CDE. "This allows Raymond Brown to not only reduce the level of operator intervention but also gives flexibility in the sizing of the centrifuge.

In addition to the water recovery and recycling benefits offered by the combination of the AquaCycle thickener and decanter centrifuge they also have the effect of significantly reducing the space required on site. This is as a result of eliminating the requirement for settling ponds which are now replaced by the waste bay underneath the centrifuge enclosure where the cake is discharged.

"The complete plant footprint for Raymond Brown including product stockpiles is 57m x 48m" explains Matt Bunting. "If no water recycling and sludge management system was in place the washing plant would require a considerably larger area than this and introduce further cost to the project as a result of the requirement to build secure & safe settling ponds."

"Another benefit of eliminating settling ponds that can't be overstated is the health & safety benefits" explains Richard Hoare. "By removing this risk from our site at Roke Manor we are demonstrating our commitment to best practice. The best way to protect your people is to eliminate the risk and that is what we have chosen to do at Roke Manor by introducing this closed circuit water recycling and sludge management system."

Summary

Given the location of Roke Manor quarry the new washing plant puts Raymond Brown in a good position to take advantage of the aggregate supply opportunities that exist in the Southampton and wider Hampshire area.

"We've got good access to Southampton at only 11 miles from the city centre" explains Richard Hoare. "We identified the opportunity from an investment at Roke Manor quarry some time ago and are delighted to now have the latest materials washing and classification technology in operation. The will allow us to deliver the highest quality sand and aggregates to the local construction market – something that customers of Raymond Brown have come to expect from us in the last 60 years."



L-R: Colin Jones - General Manager, Lee Milford — Quarry Manager, Marcus Dredge — Operations Manager for Raymond Brown, with Lauren McMaster of CDE Global.



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TJC Sand and Gravel choose Ormonde Machinery

The village of Claudy near Derry City, was originally named from the Irish "Cloidigh" meaning washing river, most likely referring to the fast flowing Faughan River. This is the location of TJC Sand and Gravel's pit and the place where Trevor Mulhern started his business in 2010, when washing sand and gravel and building a business during one of the biggest recessions on record took considerable vision and determination.

This poor economic outlook did not deter Trevor whose lifetime goal was to run his own business. After several years' of working in the extractive industry that's exactly what he did and TJC Sand and Gravel was born. The company supplies high quality sand, gravel, topsoil and decorative stone products to a broad and geographically diverse range of customers. The unique properties of the material from TJC's extensive deposits make the finished products highly regarded among some of the largest concrete product manufacturers in Ireland. Through continued investment in new equipment and innovative product designs, TJC have carved out a strong name in the sector and have ambitious plans for the future development of the business.

Today with a dedicated workforce and a growing customer base on both sides of the border TJC are going from strength to strength. That growing strength was validated by an increase in demand and a requirement to invest in new equipment to keep up with production requirements. When making such a significant investment, TJC considered various suppliers of machines on the market and decided to go with a Terex Finlay J1170 Jaw Crusher and Terex Finlay 873 Screener supplied by Ormonde Machinery. Terex Finlay have a strong name in the manufacture of mobile crushing, screening, washing and recycling equipment having experienced multimillion pound investments in innovative new products by its parent company Terex over the past number of years. This has led it to becoming a much regarded brand both locally and globally with a well-established and rapidly expanding dealer network internationally. For Trevor the key word was versatility and the versatility provided by these two machines meant financial savings for his company. Both machines have performed well and exceeded expectations from the outset with notable increases in production output and quality of the finished products.

Trevor Mulhern commented: "With the ability to change the CSS at the press of a button and the speed of the Crusher in seconds, this makes the machine very versatile when different product specifications are required. The versatility of the Finlay 873 Screen also allows for many applications, from screening at the face, before or after the jaw or cone crushers, and the ability to screen top soil, have reduced the need for several different screens to facilitate my operations." >



The Terex Finlay J-1170 is a compact and aggressive tracked primary jaw crusher. The heartbeat of the machine is a robust hydrostatically driven Terex jaw chamber which provides high capacity with large reduction ratios. The jaw chamber configuration can be set up specifically for quarrying applications or processing construction demolition debris using the hydraulic release chamber option. It also features a heavy duty variable speed VGF and integrated prescreen giving excellent production throughput



in quarrying, mining, demolition and recycling applications. Notable options include a variable speed pan feeder along with an independent prescreen system. The J-1170's 48.8 tonne / 107,585lbs transport weight and compact dimensions mean lower transport costs between and within crushing sites

Key features include:

- The robust high performance hydrostatically driven single toggle jaw chamber provides high capacity with large reduction ratios.
- Automatic variable speed VGF ensures continuous choke feeding of the crushing chamber for optimal productivity.
- High powered hydrostatic drive ensures precise chamber control and reverse functionality for clearing blockages and assisting in demolition and recycling applications.
- Hydraulically assisted closed side setting adjustment minimises downtime and offers quick adjustment.
- Its compact size, quick set up times, ease of transport and user friendly operational features make the J-1170 ideal for all sized operators.

The Terex Finlay 873 Scalping Screen is ideally suited to working in aggregates, sand and gravel, top soil, construction demolition and recycling applications. This highly versatile machine can be fed either by a tracked mobile crusher, shovel

or an excavator and has the capacity to process at a rate of up to 450 Tonnes per hour.

- Aggressive 12' x 5' top and bottom deck screenbox
- Screen box angle can be hydraulically adjusted to an angle between 13° to 19°.
- Screen box discharge end raises hydraulically 500mm to facilitate mesh changing.
- Screen box can accept punch plate, cascade fingers, bofar bars and speedharps.
- Galvanised access catwalk on both side of screen.
- Oversize conveyor angle can be adjusted from 18° to 24°.
- 1.2m wide Belt feeder complete with 7m³ manual folding hopper.

For any company making a capital investment decision is significant, and choosing the right partner is a key consideration. For Trevor Mulhern keeping production levels maximised and mitigating any down time was a key consideration "I chose Ormonde Machinery and the Finlay products due to the proximity of the manufacturing base, and good relationship I have built up with Ormonde in the past two years. For us after sales service and the ability to respond quickly was a paramount consideration"









Next Generation "V" series screen - Latest & Greatest. Why mess with the Best?

The Cedarapids/Eljay triple shaft screen is well known for its high production and screening efficiency and are considered the best in the industry. Many of our patented features like "sealed for life" o-ring huck bolt construction and "flow-through" lubrication make it the best. High productivity is achieved by its highly aggressive motion that agitates material getting smaller particles to the screen surface quickly where they can align and pass the openings. This aggressive action also helps keep screen openings clear when working sticky materials. The horizontal screen by its nature is more efficient than traditional sloped screens but even more efficiency comes from the oval stroke motion that pushes the screen openings directly, almost perpendicularly, into the material bed on the up stroke. This path promotes higher probability of passing "near size" particles on each stroke of the machine.

That reputation has put our screens in the cross hairs of competitors, and many copycat products or alternative products are being brought to the market. However, none have matched the true 3:1 elliptical stroke motion, high performance, and durability. With increasing pressure from competitors, we looked to take our screen products to the next level.

We tasked our engineers to address 3 basic areas of improved value; stronger & longer life, more capabilities and applications, and reduced maintenance and cost of ownership. Our long history and knowledge of our product gives us insight on where we can focus improvements while copycats, by their nature, are always a generation or two behind.

To enhance the strength and life, engineers utilized extensive computer analysis and simulation to optimize steel into critical areas. Screen performance and bearing life is directly related to the mass of the screen so keeping the weight





similar was necessary to maintain the high G action. This optimization resulted in moving steel out of less critical areas and more steel "into the rock zone" with thicker sidewalls and heavier decks than competitors. Also, larger spring suspensions increased load carrying capability and better frame isolation.

To enhance capabilities, the patented suspension and lubrication system allows positioning the screen at a variety of low angle slopes from zero to 10 degrees to best match the application. The low angle slope combined with the high G

oval stroke allows screening 50% larger openings (up to 6") and handle heavier deck feed rates. This uniform low slope angle on the entire length of the screen provides high efficient near size screening the entire length of the screen. Competitive multi-slope "banana style" low G screens use increased slope on the feed end to help reduce bed loads but can only screen efficiently near the discharge end. These low G screens are also prone to plugging or pegging larger openings due to the reduced action. Along with adjustable slope, we also created a patented optional deck deflector system to increase the effective screen area of the critical bottom deck making the screen effectively 10% larger.



To reduce cost of ownership, several reduced or no maintenance features were incorporated. A new patented low maintenance damping system that minimizes suspension surges during startup and shutdown eliminated frequent maintenance and rubber wear parts. This new damping system also acts as a tether for portable plants eliminating the time to install rigid shipping braces. Breathers were removed on gear cases to eliminate breather maintenance.

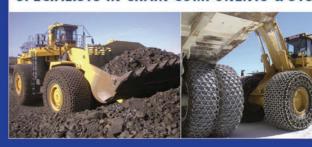
The new high capacity suspension system has bolted upper and lower spring guides which makes spring maintenance easier and guicker since the screen only needs lifted slightly to remove springs. This allows spray systems, feed chutes, and discharge chutes to remain in place. Oil sight glasses are incorporated rather than plugs so oil level can be checked without using wrenches. Optional replaceable wear liners on decks and shaft tubes also reduce maintenance repairs and down time.

These New "V" series is truly the next generation screen. We don't stop with just the screen, our portable plants are top of the line with features like tethered surge damper, low maintenance "flex shaft" screen drive, rollaway blending chutes, and large capacity conveyors. These screens and portable plants deliver real value to the customer and raises the target for competitors once again.





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SRC Aggregates "evolves" its fleet with three new B30E trucks from Bell Equipment

SRC Aggregates, a leading Essex-based quarrying, waste disposal and recycling firm, is evolving its fleet by replacing its older Bell Equipment B30Ds with new next-generation B30Es.

Selected to work within the firm's quarrying division, the B30Ds have proved themselves reliable and productive but they were ready for replacement. Having had such a positive experience of both Bell and the abilities of the B30D machines, the team at SRC Aggregates felt confident that their fleet would be further advanced if the B30Ds were replaced with the state-of-the-art B30E, as SRC Aggregates managing director, Oliver Rees, explains:

"We're proud of the positive track record we've established within the construction, building and civil projects industries. It's a reputation we're keen to retain and enhance, so by investing in replacement equipment that doesn't just meet, but exceeds expectations, we're continuing our customer commitment in offering the very best service possible."

SRC Aggregates has several established quarries within its portfolio, producing top grade sand, shingle, ballast, topsoil, limestone and granite. Such strenuous quarrying conditions require machinery that is fit for purpose. With its high performance and modern diesel engine, the B30E has been designed for exactly these types of environments, delivering exceptional power and optimum fuel economy as well as the very latest on-board technology.

In addition, the B30E features on-board weighing as standard, and Fleetm@tic® - the desktop management system capable of creating up-to-date operational data to aid fleet efficiency. These design features are already proving invaluable, as the trucks chosen by SRC Aggregates have been put to task stripping overburden and hauling ballast from the quarry to the processing plant.

"We are getting a great payload from our three new Bell machines already. Not only did we find the machines to be competitively priced, but they are also proving themselves to be exceptional workhorses, which is absolutely essential in a quarry," Oliver continues.

Nick Learoyd, Managing Director at Bell Equipment UK has been pleased to hear that SRC Aggregates has not only chosen to replace Bell machines with new models, but is already reaping the reward of the investment. He says, "The B30E is working proof of how our ADTs are evolving in terms of physical capability and technological advancement. They are powerful machines, purposefully designed to deliver a consistently reliable performance in the dustiest and most demanding of working environments. We're confident that these industrious machines will continue to deliver for SRC Aggregates — both now and long into the future."



Managing contractor safety in quarries

Working in the quarrying industry presents a number of distinctive dangers and risks, meaning Health and Safety must be a priority for all. Bearing the bulk of the responsibility is the quarry manager, who not only has to consider the safety and health of their permanent staff but also that of any contractor or visitor attending the site.

It's commonplace to find contractors working in quarries and in some cases making up a large proportion of the day-to-day workforce. It is a common misconception that contractors on site are not covered under the same Health and Safety Regulations as permanent staff - this is not true.

It is vital that everyone onsite understands their health and safety responsibilities and it is the role of quarry managers and supervisors to ensure all those on site comply with best practice guidance.

What are my responsibilities for contractors as a manager?

It is your responsibility to ensure that Health and Safety standards are observed and in line with current legislation. Regulations such as the Safety at Work act 1974 state that companies are responsible for the health and wellbeing of all staff - including contractors - that work onsite and, as a manager, you must ensure that this is upheld.

Where can you find relevant guidance?

If you are unsure what guidance to provide to contractors visiting your site, the Quarries National Joint Advisory Committee (QNJAC) have recently released a series of documents and toolbox talks to ensure contractors understand what is expected of them. You can find them at qnjac.co.uk.

Top Tips - Health and Safety Passport Schemes

A Health and Safety Passport is a great way to ensure that your contractors, visitors and staff have some grounding knowledge of Health and Safety. Always check the validity and suitability of the cards and complete your site specific inductions.

The MPQC/SPA Contractor Safety Passport is the preferred safety passport for quarrying. With open courses available at training centres nationwide or at customer locations it is an accessible course for any contractors required to spend time in a quarrying environment.



Steps to manage your contractors

Step 1 - Planning

Planning is key. If you define the job details and plan what the job involves you can then look at how the job can be carried out as safely as possible. Assessing potential hazards and creating a risk assessment would be a good way to do this.

Step 2 - Selecting a Contractor

Selecting a contractor to do the planned work should take a lot of consideration. You will have to contemplate factors such as their health and safety management system, risk assessments, their competencies and whether they hold a record of good health and safety in similar environments. Most obviously, do they have the resources and skills needed to carry out the task?

Step 3 - Working on Site

Always complete an induction for contractors / visitors to brief them on site conditions, safety rules and practices. By arranging regular meetings and inspections you can review the safety management system in place. Always keep contact and skills records for the contractors and ensure they are signing in and out of the site as they come and go.

Step 4 – Keeping a Check

Is the job going as you expected? Keeping a check on your contractors includes ensuring the health and safety systems discussed previously are being actioned and adhered to. Have there been any incidents while undertaking the job and, if so, why did the incident happen? Does the work plan need adapting? Inspections and audits are a good way to keep things on track.

Step 5 – Reviewing the Work

After the contractors have complete the job you should review both the task and the contractor. This will give you an indication of whether the contractor was suitable for the task and whether you would employ them in the future. It can also be used to look at the competency of your own policies and procedures in place for dealing with contractors.

Mentor deliver the MPQC/SPA approved Contractor Safety Passport Course at customer locations or their UK training centres. Further guidance and details on this course can be found at www.mentortraining.co.uk or by calling Mentor on 01246 386900.





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We have a huge range of "semi-dry" and "wet-cast" products which we supply to every sector of UK industry imaginable. We have clients including small start ups, private individuals and international blue chip businesses. Every client is cherished and each one receives the highest possible level of personal and professional service.

Every product we make is cast from the same premium quality, high strength (50N/mm2) concrete.

Elite were also the first and are still by far the largest manufacturer of interlocking blocks for various temporary works, fire breaks, retaining, blast and push walls and by offering three block types you can be certain that we have the solution you are looking for.

We offer a nationwide next day delivery service and also an international service is always available (please enquire for further details).

> The largest interlocking block in the Elite range is called the Legato, the name coming from the Italian for 'tied together'.

These high strength blocks are designed to provide a solution for a huge variety of projects including material storage bays, blast walls, retaining walls, push walls, fire break walls, counter weights / kentledge, salt storage, silage clamps, industrial buildings or for various temporary works,.

If you're looking for the benefits of in-situ concrete i.e. incredible long term durability and strength without the expense, disruption, long build time and lack of flexibility associated with a 'cast on site' approach then Legato ™ blocks are for you.

Elite are the only company in Europe to manufacture interlocking blocks using high strength (50N/mm2) concrete. This allows our Legato blocks to exhibit extreme levels of durability, combined with the flexibility of having their own cast-in lifting pin. As each standard block will build 1.28m2 of wall, they provide an incredibly quick solution in a wide variety of applications.

In addition, because the blocks do not contain anything other than high quality, locally sourced aggregates and Portland Cement, you can be assured that your investment will last a

Elite are the UK's only manufacturer of Duo interlocking concrete 'lego' blocks - used throughout the UK in a wide variety of applications.

If you're looking for a robust, simple and flexible way of building retaining walls, push walls, salt bays, aggregate storage, compost, wood chip or any other material segregation walls then Duo™ blocks could be what you're looking for. Duo™ blocks are also ideal for all sorts of temporary works.

Choose Duo™ blocks to create fire resistant walls that are incredibly durable and yet quick and easy to install.

Duo blocks give you the benefits of 600mm thick highstrength concrete combined with the added advantage of being able to install, reconfigure or relocate the blocks yourself – without the need for expensive, specialist lifting

The clever design (which incorporates a cast-in lifting pin flush with the concrete surface) allows the blocks to be easily dry laid onto any firm surface, creating bay dimensions to suit almost any site.



The third interlocking block in the Elite range is the Vee Interlocking Concrete block. These blocks interlock horizontally and vertically.

If you looking for an interlocking block system that can provide radiation shielding (either temporary or permanent) or if you're looking for a block that can provide a retaining wall solution or for a block to use in various temporary works then VeeTM Interlocking blocks could be the answer.

The Vee[™] Interlocking block is an incredibly versatile product that will excel in the most demanding of applications. The blocks interlock with each other using a unique 'V' system along the base, sides and top giving incredible strength and stability.

Precast concrete kentledge blocks are used to act as ballast or counterweights for fencing, hoarding, scaffolding, or for various temporary works. They can also be attached to wire ropes which are fixed to the structure to provide greater stability.

Our security blocks, Interlocking concrete blocks and VeeTM interlocking blocks all make excellent counterweight blocksfor fall arrest systems, heavy lifting equipment etc., they are also perfect for most types of temporary works situations. We are also happy to work with our clients to manufacture 'tailor-made' blocks should they be required.

Precast concrete ducting is a system that allows for the accommodation of a number of different services from multiple utility and building providers.

The trough and lid system has a number of distinct advantages over direct bury and overhead suspension including...

PROVIDING A PROTECTIVE BARRIER FOR SERVICES AGAINST ACCIDENTAL DAMAGE

- ACTING AS A CLEAR INDICATION OF UTILITY INSTALLATIONS
- EASY ACCESS FOR MAINTENANCE AND REPAIRS
- HIGH LEVELS OF SECURITY

Rectangular Ducts are available in a wide variety of dimensions and they are usually available straight off-the shelf or with very shirt lead times.

All lids are manufactured to withstand Highways loadings.

Concrete Cable Protection Cover Tiles, also known as Cable Route Markers, are used frequently by utility companies to provide a clear indication to site staff who may be working close to underground electrical cables.

Covers act as a protective barrier against damage to buried electricity cables eliminating the risk of accidents and costly repairs. They can also be used to locate and identify other underground services.

Protection covers are reinforced precast concrete units manufactured and tested to BS 2484 specifications. The covers are imprinted, as standard, with the words 'DANGER ELECTRICITY' and are available in three sizes.

Concrete Cable Protection Cover Tiles (also known as Cable Route Markers) are manufactured to BS 2484 and imprinted as standard with the indented lettering warning legend DANGER ELECTRICITY and the internationally recognised Danger Sign.



There are five standard sizes available as shown below. On request we can also supply a variety of wording options such as PROPANE LINE, GAS, OIL, FIBRE-OPTIC CABLE, WATER, TELEPHONE, etc.

Precast concrete indicator posts are widely used by utility companies and are installed to assist the location and identification of underground services.

Marker posts are made from reinforced precast concrete, manufactured and tested to BS 1881 standards.

They are available in a variety of types and sizes.

We manufacture several standard marker posts in accordance with BS 1881. Marker posts are available with or without anchor bases.

Hydrant post have preformed holes to accept plates within.

Precast concrete marker blocks are primarily used to aid in the location and identification of electric cables and other utility services that are buried underground. They can also be used to mark boundaries and other reference points.

They are made from precast concrete and are manufactured and tested in accordance with BS 1881 standards.

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Marker Blocks are manufactured in accordance with BS 1881.

Where applicable blocks have a recess on the underside which houses a 6mm galvanised bar to enable cable draw ropes etc. to be attached.

The standard recess size for identification plates is 100mm x 75mm. >



Our utility protection slabs are made from precast concrete and heavily reinforced with steel. They are designed to protect a range of vulnerable utilities such as water pipelines, high pressure gas mains and power cables from damage from above-ground traffic.

Standard slabs are 2450mm x 1000mm in area and are 200mm thick. Both faces are reinforced with heavy duty mesh and each slab weighs in at 1200kg.

- Protects from mechanical excavations.
- · Both faces come reinforced with heavy-duty mesh.
- Interlocking slabs allow for easy installation and ensure rigid construction.

We offer a range of options when it comes to securing your premises against unwanted visitors, to manage site traffic and for use as HGV MOT test weights.

You can choose from the Security block, the VeeTM interlocking block, the LegatoTM interlocking block, the DuoTM interlocking block or from our Marquee block ranges. Not only do these blocks provide security solutions they can also be used for various temporary works applications.

All systems come with integral lifting options and can be painted in your company logo/colours, Ministry of Transport approved chevrons, etc... and provide a much cheaper alternative when compared to hiring-in barriers.

Our large two tonne precast concrete blocks are designed and manufactured to be used as security blocks preventing access to land and buildings and are ideal for blocking entrances and gateways or for use as HGV MOT test weights.

All of the blocks have their own lifting and placing systems and can be delivered and installed by our specialist team using the...

- Forklift/Telehandler slots
- 'Deha' lifting pin
- 'Hiab' type clamp

For traffic management and for safely segregating pedestrians from traffic / vehicles the Elite Interlocking Jersey barrier is an ideal heavy duty system which has been designed for the ultimate in anti-vehicle perimeter protection.

Cast from Elite's standard high-strength concrete (50N/mm2) the barriers are quick and easy to install and are available direct from stock for next-day nationwide delivery.

The interlocking Jersey barriers are ideal for traffic management, flood defence, site security, rockfall, edge protection as well as for various temporary works.

Our Jersey barriers are 2500mm long and weigh 1450kg. The unique interlocking system provides incredible levels of security against unwanted visitors whilst allowing sections to be easily removed and repositioned should emergency access be required.

The barriers are available for delivery on a self-install basis using a standard forklift truck. Alternatively our experienced and fully-trained installation team can deliver and place them anytime, anywhere.

Elite's Temporary Vertical Concrete Barriers (TVCBs) are the perfect safety barrier for a huge variety of applications including many types of temporary works.

They are cast from Elite's highly regarded high strength concrete (50N/mm2) which, combined with approved steel reinforcing, means that the barriers meet the requirements of EN 1317 'Compliant Road Restraint Systems for Temporary Safety Barriers

TVCBs have a multitude of uses including...

- · To create a safe working area for your workforce
- To provide flood defences
- · Protecting pedestrians from traffic
- Providing traffic barriers / bases for secure fencing to be fixed to (particularly useful for large public events such as the Olympics / Commonwealth games
- Preventing un-authorised access to forecourts, car parks, fields and site compounds
- Helping direct traffic flows safely
- As counterweights, kentledge for scaffolding, fencing, cranes, etc
- Proving security against ram raiders and terrorist attacks

The safety barriers are connected together at the scarf joint by M24 high tensile bolts.

Elite's TVCBs are always available direct from stock for nationwide next day delivery.

A crane off-load and place service is available.

So whatever your requirements give Elite a call on 01952 588885 – your solution is only a phone call away.





Oliver Donnelly discusses strategy and the recent launch of new products for **Terex Washing Systems**

In June the HUB team went along to the recent Hillhead show and our editor spent some time with Oliver Donnelly the new Business Line Director at Terex Washing Systems.

Oliver has an extensive industry background and joined Powerscreen

in 2012 as a product manager where he was responsible for all the product development, and the applications guidance and pre-support for dealers and customers.

Appointed to his new role in May he is looking forward to the new challenges which come with his new position.

Settling down with a coffee in the TWS hospitality area we asked him a few questions about the future for the washing division.

Could you tell us what business targets you have over the next few years?

Well over the course of the next 5 years we believe we need to grow our market share. We also believe washing is a growing market and by developing our product portfolio we would like to double our turnover, which is our major aspiration.

We are lucky to be part of Terex who understand that product development, speed of delivery to market and the understanding of how a business will grow. They are happy to invest in TWS to help us achieve our goals and grow our range and distribution. It's imperative we establish a good footprint in the less mature markets early, and ensure a dominant position and a strong market share in those regions.

We also have to continue to focus on our core markets; washing is a dynamic sector and is driven by contacts and new legislation changes. What operators have to do now to create a saleable product from recycled material is completely different to how they had to handle the material 10 years ago. The UK and Germany are at the forefront of where that new legislation is, and the high-tech machines that are required to meet those specifications, so we shall start to roll out into markets further afield like North America which is a strong market for us in the sands. However, with recycling being a growth industry in the States we are also well positioned by our core market in the UK, and consequently well positioned to leverage off that and grow our market share in North America and other regions.

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share in North America and other regions.

So how has John Garrison coming into Terex helped to drive things forward?

John is essentially a product guy, I've spoken to him a few times, so with his insight and knowledge he is very cognisant that R&D and product development will be key to our growth. John recently visited Dungannon for a strategy session and it was clear to see he is very aware of the potential there is in the washing sector, so he is very supportive of us in making future investments to effectively grow the business. He has also made very big investments in the Dungannon manufacturing footprint, with a brand the addition of a new suite of offices, and a completely new bay that is designed around our washing equipment. But his investment goes further as he also sees the town and the people as a key to our success so he is very facilitating and is very keen to ensure we get the right investments and bring the key people on-board to continually develop the business.

Could you tell us what new products you have brought to the Hillhead show this year?

We have three products this year; at the last Hillhead we showcased the Aggresand[™]165, this year we have the big brother, the Aggresand[™]206, and also two completely new products, the Finesmaster Ultrafines[™] and the Aggrescalp, [†] both these machines have been driven directly from customer feedback. We are very close to a lot of our customers and dealers in the UK and Europe and they are very proactive in giving us the right feedback that we need. We need to understand how markets are changing and what our priorities are in terms of product development so that we are ultimately developing and building products that have a positive effect on the bottom line of any customers' operation. It's all about developing products that are efficient, more reliable and will outperform competitors' machines. We have spent a lot of time improving access on the new MJ400R for instance and that is key for any piece of crushing equipment in recycling as your processing so many different types of material, particularly rebar and bits of steel which tend to tangle up in



snagging points. Generally tracked mobile equipment have constrictions in the design to conform with the transport envelope, however we are not faced with the same restrictions with the MJ400R, so we have capitalised on that and optimised all the critical areas, ensuring all the maintenance access is as best as we can design it which



ultimately delivers better uptime with less chance of the material snagging in the first place, and even if it does it's easier to get in there and clear the machine out and get it up and running again in a shorter time.

Integration

The new Aggresand™ 206 has increased throughput and has a larger 20 x 6ft rinsing screen and obviously a larger sand plant to handle the higher tonnages and can work quite happily with the new Aggrescalp™. The new scalper will prepare the material, it will size it and give it the top sizes enabling us to feed a prepared 50-60mm product into the Aggresand.™ This is another element where we are conscious about developing a machine to ensure we are getting the right levels of compatibility between our models; consequently the Aggrescalp™ can integrate seamlessly between the Aggresand™ 165 and the new 206. >



In terms of the dealer network how do you see that growing?

Well we have DUO in the UK and a very strong network throughout the rest of the world; dealers who have been well established for many years who understand materials processing very well. We endeavour at all times to engage with the dealers in terms of training, to ensure they understand these products, the benefits to their customers and ultimately arm them with all the tools they need to optimise their sales in the market. With the UK being quite advanced in terms of how customers approach washing aggregates and sands we also have an obligation to take that knowledge and roll that out to our dealers worldwide so they can understand how customers in the UK handle it and how they might deploy it in their market as well. We also have a degree of cross pollination of information between the dealers to make that happen. For example, we had one of our dealers in Australia visit the UK last week and visit a few sites to see how a customer will typically handle applications and see how that can be deployed to keep us at the forefront of washing in Australia as well.

In terms of new product are you planning to extend the range in the next 12 months?

Well we are going to continue broadening the range of products we already have and another area we would like to get into is telematics. One of the key benefits in our equipment is the modular range with advanced HMI which can provide a lot of information in terms of motor running power, flow rates and water pressure etc. If we are able to ensure off-site visibility of that it can help us advise dealers on applying preventative maintenance. It will also help us diagnose faults quicker and more accurately and gives us a better insight on how products are operating and the parameters they are running under, which in turn feeds back to our product development side. That's a broad base of thought over the next couple of years.







Think of technology as another tool in the profitability box

By Phil Lewis Finning applications manager

We all know that technological advances are changing the way everyone lives, works and connects with each other. So it is no surprise that technology is now having a major impact on those industries that use mobile equipment, like the mining and quarrying sectors.

Thanks to the 'internet of things' it is not just people that can talk to each other, machines are now finding their own voices and learning how to tell their story, as well as helping to provide time and cost saving solutions for more complex tasks.

The key to taking advantage of technology however, is to understand how to apply different technologies or systems to the everyday tasks needed to run a successful operation or project.

Greater efficiency leads to greater profits

Take the quarrying industry as a good example. In order to make money, a quarry operator needs to blast a rock face, load and haul the loose rock to a crusher and ultimately use other processing methods to create a salable product.

In order to make this financially viable and as profitable as possible, each stage of that process needs to be managed at the lowest possible cost. To do this successfully you need the right people, expertise, equipment and processes. You also need to focus on continuous improvement and the capability to investigate what actions can be taken to achieve incremental gains at each point in the production cycle.

This is why technology must be seen as one of the tools in the profitability box that can support productivity gains and cost reductions. In practical terms, there are two very different types of technologies that can provide data to support the quarrying industry. There are those that can be integrated into a machine and those that are standalone. So the key to using technology effectively is knowing how to process, read, interpret and act upon the data produced by a whole range of devices and systems.

It all starts with the mapping and planning

A well planned quarry site layout and development plan is critical to the success of any operation. This is why surveyors and surveying technology is so important. Whether using the latest Trimble base station and mobile surveying equipment from SITECH, or taking advantage of drone based mapping from the Redbird and Finning partnership, the more information you can gather about a current or proposed new site, the better.

For example, one of the most important areas to survey are the stockpiles of product, as they represent an asset ready for sale. Traditionally stockpiles have been calculated by using counter wheels and measuring tapes. But thanks to new digital surveying rover equipment, much more accurate information can be taken and processed onsite.

Equally, it now only takes around 2 hours to fly a drone or unmanned aerial vehicle (UAV) over a site and just minutes to identify and label stockpiles or check safety bunds are the right height. This is thanks to the cloud software from Redbird, that automatically recognises haul roads, quarry faces and safety bunds, calculating their heights. For safety bunds, the system uses a traffic light tag system, with red highlighting areas where work needs to be carried out to meet the HSE and site pre-designated guidelines.

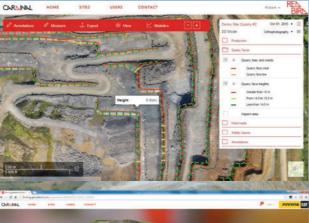
This is all made possible thanks to the very high resolution data collected by the Redbird drones, which take up to 150 measurements per square meter. So when it comes to planning haul roads, a typical desired grade for the best Off Highway truck performance would be around 8-10%. Take this above 15% and the increases in fuel burn and component wear alone can dramatically increase haul costs.

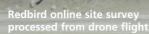


A little help with compliance

In addition to safety bunds, adhering to legislation is very important when it comes to quarry faces. Take for example the Cat 374F with its mass excavation boom, a 74 tonne machine typically used in quarries. From the deck this has an 11 metre reach, therefore if it is sat on a stockpile, this machine can address a face of up to 15 metres in height. So when looking at the positioning of blasts and quarry faces, the Redbird data can deliver a 3D model of your quarry face, to allow for much more sophisticated placement of explosives for blasting. >







Due to surveyors not having to be present whilst the operator works, it opens the possibility to drilling activity being a 24/7 process; completely negating the costly incursions downtime and machine idling can have on an operation.

It pays to load efficiently

Once blasted, it is the job of the primary movers to efficiently load and haul material and this is where health and payload monitoring really play a key role.

Payload systems are now being designed into machines such as Wheel Loaders, Excavators, Ridged and Articulated Dump Trucks. This real-time payload technology gives small to large quarry operators an exact picture of what the prime movers are doing. At the click of a button in VisionLink, the Cat software that collects the data from each machine, a quarry manager can see whether a truck has been under or overloaded and how many passes are being used to load each unit. The in-cab display also shows the operator how much material they are getting into either the bucket or the skip.



Cat 990H and Cat 775G at Dove Holes Quarry for CEMEX UK monitored by Finsight engineers at Finning

From planning to drilling and blasting

Having a 3D model of the quarry, either from drones or a connected site using Trimble base stations, enables the use of other technologies like more advanced drilling for 24/7 face blasting. In practical terms, a surveyor will use the 3D model to design the drilling points, sending this information to the Trimble DPS900 Drilling and Piling System, complete with remote sensors, without the need to be onsite.

These sensors link with the mapping display hardware within the cab to guide the operator, with antennas/receivers allowing for the machine to be connected to the accompanying Trimble software in real time, through the GPS network or onsite base station.

Once in position, the in-cab monitor will instruct the operator to adjust the angle and orientation of the drill mechanism, alerting them when the correct depth has been reached.

For example, by avoiding overloading, the operators not only stay within safety parameters, they also reduce the strain on the equipment and its components, extending the overall life of the machine.

If you can reduce the idle time on a machine, you will also improve its productivity, but when it comes to increasing uptime it is the health of the machine that is really important. With machines able to talk to maintenance teams through GPS enabled pre-programmed alerts from numerous in-built sensors, health events can be monitors in real time. With increasingly sophisticated sensors able to pick up everything from components overheating to transmission alerts and excessive breaking, each machine is able to share an increasing amount of useful information.



Technology is the operators' friend

Finally, by combining location data with these alerts and 3D surveying data, we can understand where something is happening and investigate the reasons why.

For example, in a recent case, we were receiving regular alerts from the braking and transmission systems, which if not addressed would lead to premature component failure. By combining the intelligence gained from drone flights, location based machine alerts and operator feedback we were able to identify a gradient change in the haul road in excess of 16% at a specific location.

By remodelling this section, the customer was able to make significant long-term savings and the operator team recognised the added support technology could give them.

So by combining important bits of data with training, experience and knowledge of applications, locations, materials and weather conditions, utilising technology can really make a difference.

Cat wheel loader monitored by Finning for **Aggregate Industries at Bardon Quarry** www.hub-4.com/directory/7230 at 740C ADT monitored by Finning at **CEMEX UK Dove Holes Quarry** Cat 775G Off highway truck at CEMEX UK **Dove Holes Quarry is** monitored by Finning using Product Link technology



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Find us at BULKEX 2016 Stand 28



A solution for dusty work environments

Dusty work environments such as quarries, landfills and recycling yards can present many health and safety problems. Airborne dust can cause a number of long term health problems such as Chronic Obstructive Pulmonary Disease (COPD), a disease that causes irreparable damage to the lungs and causes constant shortness of breath.

The health problems associated with airborne dust highlight the need for sites to manage it effectively. Dust is extremely difficult to control once it's in the air and one way to effectively stop dust is to target it on the ground before it has the chance to become an airborne hazard.

Our latest range of dust suppression equipment is the most effective and varied we have ever produced. During our 4 decades of studying this technology we have developed individually designed machinery and adapted standard equipment to provide bespoke suppression. With dust at work being one of the largest issues, we have been actively engaging with our clients and working alongside our suppliers to enlarge the range of dust-limitation machinery available. Environmental responsibility, particularly in the control of water usage, remains a significant component in the process of developing new products. For simple dust suppression, we offer a tractor and tanker combination. All of Ace plant's dustsuppression units are fitted with safe hydraulic vacuum pumps. This pressure-fed unit is fitted with a splash plate, making it particularly suitable for dampening down residual dust on haul roads etc.

For situations where water consumption is an issue, we have developed a hydraulically driven carbon fibre spinning disc assembly. Using less water than pressurised systems, the spinning disc makes water usage more efficient, and gives the operator greater control. This is particularly relevant when site water usage is metered and alleviates the need for frequent tank refills. When a more targeted solution is required, our rain gun could be the answer. It is powered by a high-capacity hydraulic centrifugal pump which will produce a throw of up to 70m. The rain gun can be accurately directed and is powerful enough to be used for firefighting.





These tankers come in a variety of sizes ranging from 2250 Litres to the larger 9000 Litre unit.

With fleet utilisation being a major issue, our

Quickspray dust suppression unit (which can be manufactured for either a loading shovel or a telehandler forklift) is likely to be of interest to cost conscious site managers. Not only does this product produce accurate and effective dust suppression, it also helps to ensure that your existing equipment fleet is used to its full capacity.

The difficult problem of airborne dust can be solved by using units from the extensive range of Dustfighter electric fan based misting machines. The fine droplets of water reduce the particles of airborne dust and return them to the ground before they become a problem. Dustfighters range from the small pedestrian controlled Smart machines to the large self-contained mobile versions DF 7500 MPT complete with integral 22KVA generator and 2000 Litre water tank. These popular machines have been developed and tested by Ace plant to deal with most site airborne dust problems.



Slag recycler uses dust suppression cannon to meet air quality regulations

A Canadian environmental solutions firm operating a slag recycling plant in California is using industrial atomized mist technology to contain fugitive dust emissions and control runoff to satisfy strict state air quality regulations. Tervita Corporation -- based in Calgary, Alberta -- was tasked with controlling dust while conserving water in an area known for high winds, Rancho Cucamonga, CA. The firm accomplished that goal by integrating a tower mounted DustBoss® DB-60 with a modified shipping container in an innovative design that stabilizes the unit and protects electronics. The result is a drastic reduction in fugitive dust emissions, improved regulatory compliance and better community relations.

In 2012, the Gerdau Corporation chose Tervita to take over operations of the slag processing plant, servicing the company's long steel mill located approximately 0.25 miles (0.4 k) away. Facing a transition that required updated equipment in a strict regulatory environment, Tervita managers worked closely with the South Coast Air Quality Management District (SCAQMD) and local leaders to create an air quality management plan that made the operation compliant and more efficient.

Tervita receives approximately 300 tons (272mt) of material a day in 10 to 14 "heats" (dump truck loads), which are offloaded into a 200-foot-deep by 100-foot-wide (61 metres x 30.5 metres) storage area separated into two sections. Nearly a third of the temperature of the surface of the sun, newly delivered slag -- approximately 2500° to 3000°F (1,370° to 1,650° C) -- is wetted, cooled, mixed and cured by a combination of water, front loader and time.

"When we installed the new state-of-the-art crusher, we streamlined the recycling process into a faster operation that is dust-free because of the bag house filtration system," said Carson Swartz, Operations Supervisor for Tervita. "But the storage and cooling area was a big issue. Whether offloading, churning or moving the slag to the crusher, it's constantly being disrupted, causing a lot of dust."

Prior to installing the DB-60, the company tried using the moveable sprinkler irrigation system left in place by the previous operators. Tervita found that the sprinkler system only saturated the surface material, which caused large amounts of runoff and did not properly address the fugitive dust

Managers at Tervita heard from colleagues in the steel industry about the use of atomized mist technology at another slag recycling operation. The company strategically placed a 20 foot long by 8 foot wide by 8.5 foot tall (6mx2.4mx2.5m) shipping container in the storage and cooling area. Working with DCT technicians, the container was reinforced with a heavy-duty steel frame and modified to mount a 12-foot (3.65 metres) tall steel tower topped by the DB-60 equipped with a 359° oscillation system, making the total height from the ground approximately 28 feet (8.5 metres).

KEEP

Dust



Inside the container, a touch screen panel is mounted on the wall that allows operators to control the elevation, oscillation arc, booster pump pressure, fan output and water volume. Many of these functions can also be modified outside the container by remote control.

Since the water used by Tervita for dust suppression is non-potable, it is first sent through an in-line 30 mesh, 595-micron filter before being delivered to the booster pump, where the water pressure is raised from 10 PSI (0.68 BAR) up to 160 PSI (11.03 BAR), with a potential maximum of 250 PSI (17.23 BAR). Pumped through a 1.5-inch (38.10 mm) hose to a circular brass manifold, the water is forced through 30 atomizing spray nozzles, which fractures it into millions of tiny droplets. The mist is then propelled by a powerful 25 HP electric fan that produces 30,000 CFM (849.50 CMM) of airflow through a specialized cylindrical barrel design. Atomized droplets are launched in a 200-foot-long (60 metre) cone at an adjustable 0 to 50° angle, covering a total area of 125,000 square feet (11,613 square metres) when using the full 359° oscillation.

Atomization introduces more droplets into the air than hoses or sprinklers, using a fraction of the water volume. Because



the mist is propelled by a fan rather than water pressure, the DB-60 uses only about 25 GPM (94.5 lpm) to cover the area, as opposed to an industrial irrigation sprinkler system that can require up to 500 GPM (1,893 lpm) to adequately service the same area. Not only do the atomized droplets capture airborne particles, once they land they also quench the storage piles, offering surface suppression with far less runoff and product loss.

Due to the use of atomized mist, the facility has dramatically reduced the volume of water needed for dust management, making more water available for other parts of production in the plant, thus promoting sustainable overall usage for the entire facility. With fugitive dust levels compliant to SCAQMD regulations, Tervita achieved the goals set for the project and successfully applied a new technology that could be used in other locations and applications.

"As much as we run the machine, we've been impressed by how well it's held up," Swartz added. "Since the installation, the couple of times we've called DCT, they were very responsive and even came out to visit just to see the setup. Their service matches the quality of the equipment."

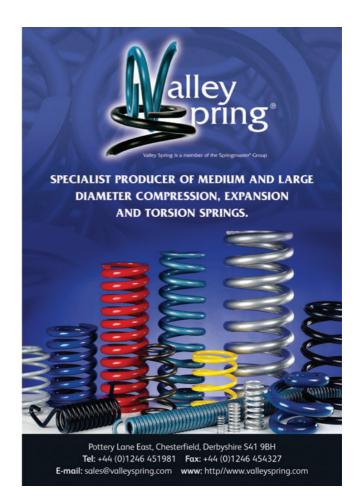




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Garic targets quarry sector with innovative 'misting' dust cannon

Best known as the UK's leading manufacturer of construction and quarry site welfare products, Garic launched a new range of dust and odour suppression equipment earlier this summer which is ideal for quarries and bulk materials handling.

The Bury-based company meticulously researched the market to find that best dust suppression products for the quarry sector and is now the sole UK and Ireland distributor for MB Dust Control's spray cannons.

Manufactured in the Netherlands, the range includes 15 models starting with compact highly mobile units and progressing in size and power to ultra heavy cannons capable of spraying across distances of up to 100m.

The unique misting technology of these highly innovative spray cannons takes dust control to a whole new level. Ultrafine water particles — just 10 -150 micrometres — form a binding 'fog' that clean the working environment by bringing airborne dust quickly to the ground.

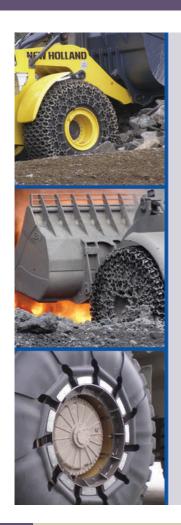
MB Dust Control's dust suppression equipment is currently being used at hundreds of quarries, land fill and soil remediation sites throughout Europe as well as on demolition projects and at ports.



Commenting on the new range, Garic's head of business development (global) Steve Booth said: "We are delighted that our new dust cannon range is generating a lot of interest already. We've got a few units being trialled with quarry, bulk materials handling and waste management companies, and so far everyone has been impressed with their power and efficiency.

"We are also in discussion with a company about an ultra powerful bespoke cannon design which will maximise spray reach at a large quarry whilst minimising water usage."







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Matpro has supplied a new, leading edge HAAS screening machine to one of the largest, independent commercial waste management companies in Scotland.

Hamilton Waste and Recycling Limited has been in operation since 2002, providing waste management and recycling solutions to commercial and industrial customers across Scotland.

In 2014, the company invested heavily in a new materials recycling facility in Smeaton, East Scotland. Due to the recent expansion, they required a solution which would process a higher throughput of recycled timber onsite.

The German engineered HAAS Flat Oscillating Screen HPS125 was initially recommended by Matpro, as it would enable more efficient screening and higher throughput of materials.

With high quality oscillating elements and exchangeable screen decks, the machine is now aiding the screening of up to 40 tons of finished products per hour.

In addition, its reliable technology with low power consumption coupled with its ability to be integrated with existing machinery means that it is much more cost effective for the company.

Ken Chrystal, Site Manager at Hamilton's Smeaton Recycling Centre said "We looked at various options available to us, but ultimately we found ourselves always coming back to the HAAS machine. One of the main reasons for this was the brilliant expertise we received from Matpro Machinery. We were also highly impressed with the level of after sales service we received.

Having someone on hand 24/7 like we are, to assist with any queries and to help us get the most out of the machine is something we can really rely on Matpro to provide."

Ben McQuaid, Managing Director at Matpro Machinery also commented "Our company invests a lot of time helping our clients get the best machinery solution and to ensure that the machine integrates with existing machinery and resources, where possible.

Having looked at Hamilton's requirements, we recommended the HAAS Flat Oscilating Screen HP125 as we knew it would match these requirements and facilitate more efficient screening.

We thoroughly enjoyed working with Hamilton Waste and Recycling Limited are delighted to still be serving the company with our dedicated after sales service support."

To find out more about the machinery and services Matpro Machinery provide, visit www.matpro.co.uk or to speak to one of our team, call us today on 0141 354 1330.



Willshee's invest in Blue

Willshee's is a leading independent domestic, industrial and commercial waste management company located in Burton-on-Trent. Family owned and operated, the company has over 30 years' waste management expertise, providing a total service for the reduction, reuse, recycling, recovery and disposal of waste. The business offers a wide range of services from wheeled bin collections, skips, RELs, roll on/off containers for general waste and all types of recycling they also offer equipment rental with full maintenance.

another part of the site twice per week. The volume of material however was continually increasing and was becoming too great for the part-time mobile shredder. Clearly something had to be done with the 10,000 tonnes of waste wood they were getting in.

Furthermore, the company had taken the decision to install a 999kW biomass boiler system directly next to the new 720 sq.m purpose build wood shed, which now houses the plant. The challenge was to create a high enough quality biomass chip from the wood waste coming through the gate to feed the boiler.









What strikes you most about Willshee's however is its forward thinking philosophy, across the entire business. Not only its innovative plans on how to deal with waste, but also how it develops its staff to ensure continuous growth and a solid future. The management team in place are clearly looking to take waste management to a highly professional level, investing not only in the latest plant equipment and fleet vehicles, but also new offices and the latest technology particularly to ensure the safety of all staff and visitors. A further aspect that stands out is how immaculately the site is maintained, with each and every member of staff in clean uniform.

Another aspect of the challenge was that the mobile slow speed shredder was not achieving a consistent enough fraction size to achieve the maximum potential price for their biomass material. The business needed to achieve an exact 70mm spec. As with any business, this challenge had to be solved whilst minimising fines and wastage, and within a specified budget. – Due to the current throughput it would not be a cost effective solution to purchase two pieces of heavy equipment.

The Challenge

Managing Director Dean Willshee approached long standing supplier Blue Machinery at the very beginning, who, after careful consideration and numerous visits to the site proposed a Doppstadt static DW256 Ceron shredder with BlueMAC conveyor system incorporating overband magnet and a Doppstadt Star Screen.

The Solution

The company was taking wood waste across the spectrum of grades from local commercial customers, and shredding the material for biomass, using a mobile Doppstadt DW 3060 slow speed that would be tracked over to the wood shed from

Recycling

The Process

The wood is initially separated into different qualities by a material handler. Although both qualities go through the same process, the final chip is used for differing purposes.

- Wood is loaded into the Ceron 256 which shreds the material to around the desired 70mm without creating the level of fines which would be generated through a high speed shredder.
- Material is taken via front conveyor under the over-band magnet to extract any ferrous metal.
- Remaining chip is then fed onto a Doppstadt HS 401 Selector Star Screen.
- Any -70mm material falls through the gaps in the star screen and is extracted from the process via conveyor; this is the final high spec material.





- Any +70mm oversized is taken backwards via the star screen and onto a conveyor at the rear of the machine.
- This conveyor containing the +70mm is then taken up the conveyor and back into the Ceron 256 for re-shredding.
 The process continues until it reaches the desired size at which point it is extracted from the process.

How the final material is used:

A Grade

The 3,000 tonnes of grade A which is shredded over a 12-month period is fed into the Boiler hopper with walking floor. This heats the water which is then fed through to an inverter. The inverter sucks air in which is heated by the water to around 90 degrees. It is then blown under the two 90 sq. m drying floors where it dries virgin wood for local customers. Pre-drying the wood is 50% moisture, which is reduced to approximately 15% in around 10-12 hours before it is taken away by the customer. As this boiler is clearly creating a

commercial benefit for Willshee's it means the company is entitled to claim a tariff via the government's Non-Domestic Renewable Heat Initiative (RHI). Furthermore, due to the exceptionally high specification and build quality of the boiler system, the business has been issued with a Part B permit which is required to run the boiler on A grade wood. Willshee's is one of the first company's in the UK to be issued with a Part B permit in a smokeless zone, which is due to the boiler design and exceptionally clean emissions.

B&C Grade

The B&C goes to UK biomass plants, such as Blackburn Meadows. Currently there is a gate fee/charge per tonne to Willshee's for this chip to be disposed at such facilities, but the quality ensures consistent supply. Plus, with more biomass power stations being built in the UK, demand for the





estimated 4.5 million tonnes of waste wood created annually in the UK is likely to increase over the coming years, meaning the disposal price is likely to reduce as the power stations demand increases.

Commenting on the plant Dean Willshee said, "The kit is just so well made. And having been to Calbe last year as part of the Doppstadt 50th year celebrations, it is clear to see they have a philosophy of solving any business challenges through their equipment that a company such as ours may have."

Director Malcolm Lawson also went on to talk about the benefits of working the Blue Group, "The account management is really important for us, because they have such in-depth industry knowledge through visiting other sites, seeing what works well and potentially demonstrating how it can be adapted to help us."





Production levels soar after delivery of Terex Finlay J-1170AS

AN INNOVATIVE aggregate supplier has seen production levels soar after bringing in a Terex Finlay J-1170AS.

Sunderland-based Grab and Deliver, which also provides waste material collection and haulage vehicle maintenance, took delivery of the compact and aggressive tracked primary jaw crusher last month.

The plant, supplied by Finlay Plant Northern - part of the Finlay Group, has since powered through around 5,000 tonnes of aggregate in a week.

The Terex Finlay J-1170AS, featuring a robust hydrostatically driven jaw chamber, has been brought in to work alongside a Terex Finlay 883 screener, also specified by Finlay Plant Northern.

Material brought to the site is being fed into the screener to produce top soil and an oversize aggregate.

The Terex Finlay J-1170AS is then being fed with the oversize material to produce 45mm down aggregate for use in roads and footpaths – at a production rate of 700 tonnes a day.

Peter Barrass, of Grab and Deliver, has been impressed by the benefits of the machine.

He said: "The new plant has completely proved itself and production levels have been excellent.

"You just press a button and it starts automatically, it's so simple to use and all parts are easily accessible.

"It takes up very little room on site and, thanks to the remote control, we can easily move it about something we've never been able to do with a crusher before."

Founded by Peter Barrass and Thomas Dunn in 2003, Grab and Deliver has worked with Finlay Plant Northern for eight years.

Mr Barrass added: "Finlay Plant Northern are great to deal with. They always know the best time to visit the site and everything gets done when they're here."

Finlay Plant Northern is part of the Finlay Group which comprises of 10 stand-alone companies offering the most modern and diverse range of material processing equipment available in the marketplace.

Charlie Nairn, of Finlay Plant Northern, said: "It's fantastic to see the Terex Finlay J-1170AS performing so well for Grab and Deliver.

"The plant is a versatile crusher that's ideal for many different applications.

"With a robust variable speed VGF and integrated prescreen, it offers best-in-class production levels not just in recycling, but also mining, quarrying and demolition."











Cheshire Demolition & Excavation Contractors switch to Komatsu

Find out why Cheshire Demolition chose to replace their whole excavator fleet with new machines from Komatsu

Having been trading for over 30 years, Cheshire Demolition & **Excavation Contractors is a** thriving traditional business with a keen eye on the future.

They focus on the demolition of older buildings - which in turn feeds the salvage and reclamation side of the business. Additionally, reclaimed concrete and brick is brought back to their six acre site just outside Macclesfield to be crushed to create 6F2 - a recycled aggregate suitable for hardstandings, haul roads, building sub-bases, etc.

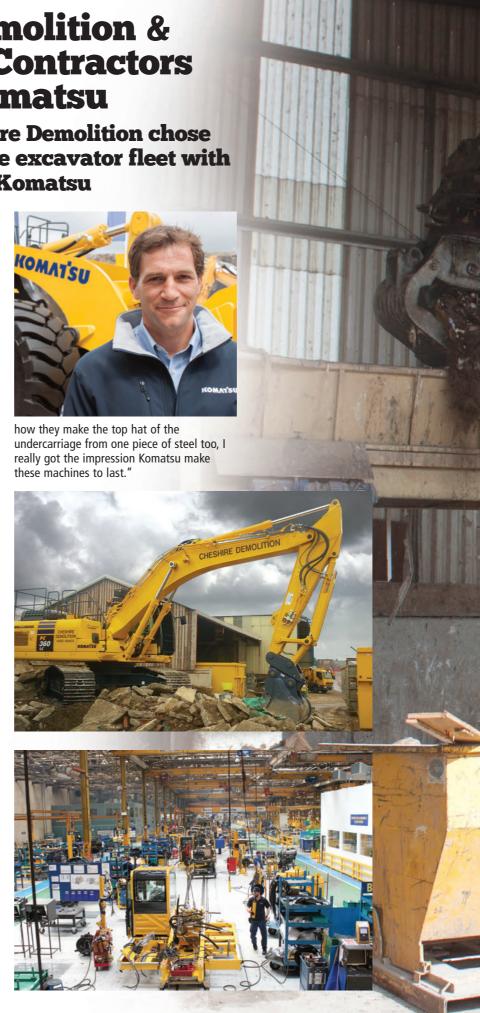
Occasionally they also get called upon to demolish or make safe buildings that have been accidentally damaged. This is only possible thanks to their team of highly skilled, experienced operators and the selection of the right equipment.

UK Manufacturing at its Best...

When the time came to renew their fleet of excavators last year, they did what any good business would do and looked around at what was available in the marketplace. Having used Hitachi machines for the previous ten years or more, they decided to approach various other manufacturers including Volvo, Liebherr and Komatsu, to see what was on offer elsewhere. Having looked at all the options, they narrowed their selection down to machines from the similarly priced Hitachi and Komatsu.

However, it was Marubeni-Komatsu Sales Manager, Tim Dilworth who effectively sealed the deal when he arranged for Cheshire Demolition's Director, Neil Truman and Transport & Plant Manager, Derek Sidebotham to visit the Komatsu UK factory.

"That visit to the Komatsu factory was really what swung it for us" explained Derek, "We got up there and they gave us the full factory tour, which was really impressive. To see where our machines would be built, and to see the care and attention to detail that goes into them was brilliant. But the bit that really impressed me was when we were shown how the top and bottom of the main boom are each made from a single piece of steel. Given the heavy-duty use our machines get put through in demolition that was really reassuring to see. Then when they showed



Recycling



UK Manufacturing at its Best...

Machine Demonstrations

Having completed the factory tour, Neil and Derek were then taken round to the on-site demonstration area. "We were expecting to be shown the machines in action but what we got was so much more useful. Neil knows his machines inside out, so he really knows what to look for. He was able to put some of the machines through their paces right there in the demo area - that gave us real confidence in what we were buying" commented Derek.

While Neil was testing the functionality of the machines, Derek got talking to Komatsu's Komtrax product specialist. Komtrax is a machine monitoring and tracking system that's exclusive to Komatsu, which uses GPS to track a machine's location at all times as well as feeding back operational information and machine health status.



Information & Security

Derek continues, "As soon as I saw the Komtrax system, I knew how useful it would be to me. Komtrax is great for keeping tabs on work time vs idle time, whether the machine is being used under heavy load with an attachment, service intervals, fuel usage, contaminants and temperatures etc.

Recently we had one of our excavators working on a really dusty demolition site and Komtrax showed the oil was starting to get hot. Because I could see what was happening, I was able to call the operator and get him to blow the dust out of the oil cooler with an airline. Things like





that can save so much down time, unnecessary repairs and expense. The other major benefit of Komtrax is that we can lock the machines down remotely overnight or during weekends. That's a real benefit and peace of mind for our customers and us when the machines have to be left unattended on sites or in dodgy areas."

"In short, we can see if our machines are making us money, we can see they are in good health and we can always be sure they are safe. For a business like ours, there's not much else that really matters. Komtrax has made a big difference to us."

Since their visit to the Komatsu UK factory, Cheshire Demolition have gone on to replace their whole excavator fleet with new machines from Marubeni-Komatsu. "We really can't fault the service we've had from Tim and the guys at Marubeni-Komatsu" commented Derek, "we were able to spec the machines with dual flow pipework direct from the factory and all the servicing is built in. They'll even automatically exchange the DPF for us at 4500 hours free of charge!"

Cheshire Demolition's fleet of twelve excavators ranges from 1.5T up to 36T and is supported by a Komatsu WA200PZ wheel loader at their site.





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Recycling



- L 538 P wheel loader complies with Stage IV / **Tier 4f emissions regulations**
- Up to 25% more fuel savings compared to other models in same size class
- Fitted with larger axles and built with a stronger steel structure

Liebherr-Great Britain Limited recently exhibited at the RWM and displayed two specialist materials handling machines from the company's comprehensive range of equipment: the new L 538 P wheel loader and the LH 22 M materials handler. Both machines are designed and factory built for municipal and commercial waste management, transfer stations, recycling operations and secondary metals handling.

The L 538 P is from the new generation of mid-sized machines developed for demanding recycling applications. Fitted with an efficient 114 kw/155 HP engine, the L 538 P fulfils emission guidelines for Stage IV / Tier 4f. The hydrostatic driveline allows rapid and continuous acceleration in all speed ranges and along with the Liebherr-Power-Efficiency (LPE) system ensures that the engine delivers optimum power even at low engine speeds. This results in fuel savings of up to 25% when compared to other wheel loaders in the same size class.

This wheel loader range also features larger axles with automatic self-locking differentials to provide maximum traction even on rough terrain. In addition, the steel structure and two lift arm variants, Z-bar linkage and parallel-linkage, are manufactured from reinforced steel to further increase durability.

Like all other Liebherr new generation wheel loaders, the L 538 P provides optimum productivity and profitability. This is in part thanks to the unique component positioning that allows the engine to double as a counterweight and thereby provide higher tipping loads at a lower operating weight.

The newly ergonomically-designed cab has numerous features to provide the operator with maximum comfort and visibility. Maintenance has been similarly well thought out: all service points are accessible from ground level and can be reached quickly and safely to speed up the maintenance process.

The LH22 M material handler that Liebherr will also have on display at RWM combines comfort, performance and reliability. It offers a winning combination of ground-breaking fuel efficiency, high lift capacity and long reach distances.

Equipped with a 5.5 m straight boom, a 3.5 m industrial stick with tipping kinematics and a Liebherr 0.75 m³ sorting grab with perforated shells, the LH 22 M is optimally equipped for recycling and sorting tasks. Other features of the machine's configuration are the operator's cab with hydraulic height adjustment plus the four outrigger supports at the front and rear.

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TEE's Highly Adaptable TTS 520-3 Trommel - One **Drum....3 Fractions**

Terex Environmental Equipment's TTS 520-3 trommel provides all the benefits of a standard drum screen - low maintenance, higher screening quality and easy set-up, while offering the added



advantage of creating three defined fractions. The addition of a disc screen system to remove an oversize product before the feed material enters the drum makes the machine extremely versatile and a cost effective solution. Compared to competitor machines, which have a star deck fitted over the feed hopper, the TTS 520-3's patented design offers operators the benefit of a full hopper for loader feeding, the ability to convert the machine to a two fraction setup without removing the star deck and an intelligent folding design allowing the three fraction machine to be transported within the same envelope as a standard trommel. The core part of the 3-fraction-system is the disc screens. Made from wear resistant steel, the metal discs are notably more resistant to abrasion and can be replaced individually to keep wear costs down. Due to the flexible design the particle size and efficiency of screening can be controlled by adjusting the disc speeds (80-160 rpm) as well as the deck angle (1° - 4°). A particle size of 80 mm - 200 mm can be achieved depending on the spacing selection chosen. Powered by a John Deere 105 HP (77kW) diesel engine Tier 3A, the TTS 520-3 provides customers with the application flexibility demanded for in today's recycling industry and is highly efficient in the processing of gravel and soil, pre-shredded waste wood, demolition waste, compost and biomass.

For further information on the TTS 520-3 or to find out about TEE's full range of trommel screens available please visit our website www.terex.com/environmental-equipment

www.hub-4.com/directory/17072

Day Aggregates ramp up recycled glass operations with high volume VL1000 **Barge Loader**

Tesab Engineering and Finlay Group have helped increase Recycled Glass Operations with the installation of a high-volume loader/unloader at Day Group's glass-recycling operation. The Trackstack VL1000 is delivering recycled glass directly from tipper trucks on to Thames barges via its 13.5m discharge conveyor.

Supplied by Finlay Plant South East – part of the Finlay Group of companies – the machine is based at Day Group's Murphy's Wharf recycling depot, in Charlton, London, one of the UK's largest recycling centres.

Day Group have been supplying natural and recycled aggregates to the construction and civil engineering industry since 1974. The

glass recycling business has been operating for the last 12 years and exports more than 30,000 tonne a year.



Adam Day, of Day Group, said: 'The machine is working brilliantly. We previously used a long-reach excavator, but it could not deliver the volumes we can now achieve. As well as speeding up the process we save on the cost of an excavator, and the fuel and labour, by operating this system.

'The VL1000 is currently running at 600 tonnes/h, although there is the potential to run at up to 900 tonnes/h if required. As well as sending out recycled glass, it has also been running with recycled aggregate.'

The sheer price of fuel for operating machinery to move material and labour costs, makes a compelling case for the introduction of the Trackstack bulk-handling system in this type of environment. As well as glass, this versatile machine can handle a broad range of materials and it is highly mobile and quick to set up.

The VL1000 can be fed by wheel loader, excavator or tipper truck and can be used to load barges and trains, as well as for stockpiling. It can also integrate with the Tesab range of crushers and screeners.



Beeswax Farming adds a new Volvo

Beeswax Farming (Rainbow) Ltd has added a brand new Volvo L110H loading shovel to its fleet of equipment which has been put in charge of loading duties at the company's recently commissioned state of the art anaerobic digester plant at Carrington, close to **Boston in Lincolnshire.**

The state of the art Biogas plant which has just come on stream will produce enough energy to supply 3 Megawatts of electricity per hour for the Nation Grid from a range of natural crops grown on the company's own farmlands across Lincolnshire specifically for generating biogas. The main ingredients that are fed into the plant are maize and rye silage which is stored in dedicated clamps on the Carrington site.

Keeping the plant fed is a new nineteen tonne Volvo L110H which was chosen following a successful demonstration at Beeswax Farming's Nocton facility near Lincoln, third party references and a competitive commercial package. The new loading shovel has been equipped with a Triomaster S300 3m³ silage cutter with a fixed blade. This bespoke attachment which is manufactured in Holland by Trioliet is designed to effortlessly cut or shear through silage without moving the stack. This ensures the silage wall remains in-tact and isn't pulled loose or otherwise disturbed. Weighing in at 2150kg the attachment is ideally suited to the L110H which can handle up to 3000kg of material in one pass. In all approximately 150 tonnes of material is loaded into the plant on a daily basis.

Powered by a Tier IV final Volvo 8 litre engine developing 258 nett hp with a maximum torque of 1250Nm at just 1450rpm, the new L110H loading shovel features optional extras such as boom suspension or ride control in order to maximise load retention whilst traversing the site, single lever control for the boom and bucket functions, a Groeneveld automatic greasing





system additional work lights and Volvo's patented Optishift combining Reverse by Braking technology with a torque converter featuring lock-up. This eliminates power losses and can further reduce fuel consumption by as much as 18%.

In order to keep the Carrington anaerobic digester fed, the new Volvo L110H will be put to work over two shifts per day working seven days a week loading raw material into the plant's four receivers. The resultant biogas that is generated powers two CHP (Combined Heat and Power) engines developing a total of 3 Megawatts of electricity per hour which is fed directly into the National Grid.

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







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REMU

Fletchers Metals and Waste Recycling invest in an EDGE TRT622 Trommel.

Founded in 1982 Fletchers Metals and Waste Recycling (FMWR) has grown to become one of the leading waste management and skip hire experts in South Yorkshire and the Derbyshire regions.

With a strong emphasis on eco-friendly waste solutions their Sheffield site incorporates secure storage and treatment facilities where they can manage all types of waste and metals to ISO 9001 and ISO 14001 standard, helping maximise their re-use, recycling and waste-to-energy capabilities.

In an effort to introduce more capacity and efficiency at their Sheffield site, FMWR have recently invested in an EDGE TRT622 Trommel. This decision was made after the company had researched the market and looked at several manufacturers before reaching the decision that the EDGE machine was the most robust, with the best features and the best value for money.

Richard Fletcher – MD at FMWR, commented, "We looked at all the leading models on the market and after much research decided that the EDGE Trommel was by far and away the most fuel efficient, this coupled with the unparalleled screen capacity and huge stock piling capacity it had to be the best machine for us."

The EDGE TRT622 Trommel:

The EDGE TRT622 Trommel is the largest trommel EDGE manufacture. Featuring a 2.0m x 6.9m drum the TRT622 is a heavy duty machine suited to all applications from C & D waste, to compost and general waste.

Steven Lythgoe - Director at FMWR, commented, "Since we took delivery in May we have been very happy with the performance. The throughput and capacity has been spot on and has reassured us that we made the right decision."

Featuring the widest inlet of any trommel in its class, to prevent material bridging or blocking, the feeder also incorporates a full length impact plate to prevent the belt getting punctured and ripped.

With a load sensing hydraulic drive system, the trommel drum senses the load and adjusts the feeder rate accordingly to prevent overloading. With no load on the drum the sensor will reduce the engine to idle speed, eventually turning the engine

Operation can be controlled from an 8 function remote control which starts and stops the machine, along with machine movement (superb manoeuvrability) and redialling the fines conveyor.

Forward thinking design features include a 1500mm wide collection conveyor under the drum which ensures the sides of the machine are steep, preventing material building up and spillage. The angle of the drum can also be hydraulically changed depending on ground conditions and the type of material to be processed.





Fines collection is discharged out of the opposite end to the oversize where a 180 radial provides huge windrow stockpiling capacities.

Fintan McKeever – Director of Max Innovate (EDGE UK dealer), commented, "The heavy duty design and construction which has been developed in this impressive screening trommel is ideal for applications such as top soil, recycling, composting and is proven in C&D waste. Designed for maximum productivity the TRT622 incorporates heavy duty construction and zero spillage – it's the perfect machine for FMWR."

Other features of the EDGE TRT622 Trommel:

- CAT 4.4 130hp electronic engine
- Heavy duty oversized conveyor with variable discharge height
- · Heavy duty trommel barrel
- Unique high-throw aggressive screening action
- Reversible fan to keep radiator clean
- Belt magnet fitted to the oversize conveyor
- Magnet head drums on both the oversize and fines collect conveyor

Richard, further commented, "We have been very impressed with the performance of the machine and we were pleasantly surprised by some of the smaller design features which we had not previously noticed, including the automatic grease cartridges and access to all the service points."



Eriez Magnetics unveil revolutionary Stainless **Steel Separator**

Typically, stainless steel has been recovered using expensive sensor sorting technology - until now.

Following more than 25 years of separation success with Eriez' traditional Rare Earth Roll range, the concept has evolved, making way for the allnew RE Roll Separator. Eriez has supplied hundreds of the high intensity, high gradient, permanent magnet separators to the minerals and ceramics industries for the optimum separation of paramagnetic particles from dry products.

The innovative, new separator enables waste processors to efficiently recover and remove stainless steel from multiple waste streams and post processed materials such as scrap metal and shredded automobiles.

Despite stainless steel being a valuable commodity, it has historically been a difficult material for waste processors to recover, leading to lost profits and expensive damage to downstream process equipment.

Extensive research and development by experienced Eriez engineers has led to the design of the separator, which consists of powerful Rare Earth magnets positioned inside a magnetic head pulley on a 1 metre wide Kevlar® conveyor belt. The specially designed Kevlar® belt provides maximum magnetic field strength on the belt surface, whilst offering excellent wear resistance. As a result, the highest, most intense levels of surface gauss are produced, allowing for effective separation of work hardening stainless steel and other weakly magnetic material that otherwise cannot be efficiently recovered.

Importantly, Eriez offer the RE Roll separator with a 300mm head pulley diameter, producing exceedingly high levels of surface gauss, enabling users to consistently achieve the best levels of separation. Further complementing the high-strength separator, the design features a robust frame structure, adjustable splitter plate, and variable speed controls.

Gareth Meese, Sales Director at Eriez Europe comments: "The new RE Roll separator demonstrates Eriez' dedication to ongoing product development. Our experienced engineers have developed what could be an important product for the recycling industry as regulations increase and landfill costs continue to rise."

The RE Roll separator further expands Eriez' range of equipment for the recycling industry, and, combined with the successful range of ferrous and non-ferrous recovery options, ensures the most comprehensive solutions available for metal recovery.





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Register now for free tickets to this autumn's BULKEX16, the exhibition and conference taking place at the Harrogate International Centre next month.

The industry event - on Wednesday 5 and Thursday 6 October - is being organised by the Materials Handling Engineers Association (MHEA).



Visitors to BULKEX16 will enjoy exhibition stands and presentations from leading experts –it's a great way to network and communicate with others across the materials handling industry. Free tickets can be reserved by visiting the website at www.mhea.co.uk/bulkex-16

A prestigious line up of prestigious industry speakers has been announced, which includes representatives from Aggregate Industries, The Bristol Port Company, Graham Construction, Peel Ports and The Wolfson Centre for Bulk Solids Handling Technology, University of Greenwich.

BULKEX16 SPEAKERS:

Stephen Dryden, Commercial Director, Aggregate Industries Overseas Division

A member of LafargeHolcim, Aggregate Industries quarries, manufactures and supplies a wide range of heavy building materials to the construction Industry. Stephen has been with Aggregate Industries for over nine years, and has extensive commercial experience within the industry. He has held various positions within the company and was previously General Manager for Al's Aggregates and Asphalt businesses in Scotland. In his current role, he has full EBITDA responsibility for the Overseas and Yeoman Latvia businesses.

Martin Downey, Bulk Terminal and Operational Engineering Director, The Bristol Port Company

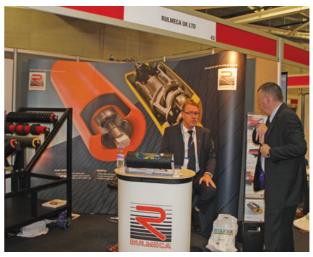
Martin is skilled in all aspects of bulk handling and port engineering. He is responsible for handling a variety of bulk cargoes including coal, biomass, stone, animal feed and grain from transhipment, unloading, storage to reloading.

Highly experienced in the commercial logistics and demographics of the UK bulk market, Martin's knowledge ranges across all areas of aggregates extraction, processing, distribution and marketing with further experience of coated materials, the recycling of secondary aggregates and land filling of waste.

Chris Griffin, Business Development Manager, Peel Ports

Chris Griffin is an experienced leader in the logistics sector, having held senior roles in global and international logistics and warehousing organisations.

As the sector expert with Group Business Development responsibility for the one of the UK's largest port operators,





Peel Ports Group, Chris heads the strategic development of bulks and energy, encompassing all dry and liquid bulks, in addition to the array of markets in the energy sector.

Michael Mitchell, Pre-Contracts Director for the Civil Engineering Division at GRAHAM Construction

GRAHAM Construction is currently undertaking construction of major biomass handling and storage facilities at Immingham and Liverpool ports.

Mike Bradley, Director, The Wolfson Centre for Bulk Solids Handling Technology, University of Greenwich

Mike Bradley is Professor in Particle and Bulk Technology, Director of the Wolfson Centre and Head of the Greenwich Manufacturing Group at the University of Greenwich.

He was awarded both his honours degree and PHD from Thames Polytechnic (now the University of Greenwich) and, as the Director, provides technical leadership in all aspects of bulk solids handling.

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Compact cooling and safe coupling - KTR components in the new engine series H by Hatz

Hatz, the Lower Bavarian manufacturer of diesel engines, optionally supplies all types of the new engine series H as an open power unit ready to install. For cooling charge air and engine coolant, a combined cooler by KTR is used which was dimensioned in cooperation with Hatz. In addition, a compact engine oil cooler is part of the scope of delivery. If the engine is used on a hydraulic drive, a flange coupling of company KTR provides for the reliable connection with the pump.

Plug & Play: This is a vital feature with industrial engines mainly used by low volume manufacturers. Large manufacturers of construction and agricultural machines or forklift trucks, as an example, purchase the engine only and configure the peripheral equipment required such as cooling units, tubing and flange coupling by themselves. The manufacturers of special-purpose machines and vehicles in turn prefer so-called "power packs" or "open power units" which are ready to install as far as possible with the user being sure that engine and cooling systems have been perfectly matched.

New series H as an open power unit

Hatz provides all types of the recently developed series H as an open power unit (OPU) ready to install to this large clientele. The basic type, the water-cooled 4 cylinder Hatz 4H50TIC with 2 litres cylinder capacity and a maximum power of 55 kW makes use of common rail technology, turbo loaders and external exhaust gas recirculation. Series H meets





the very strict emission regulations level III B (EU) and EPA Tier 4 final (USA) without using particle filters and has been designed based on a pioneering downsizing principle making the engine the most compact and most light-weight one of its class, as stated by the manufacturer.

Wide application range - high demands on cooling

As an OPU version the engines of series H are provided with all components required for cooling by the manufacturer. The user merely has to connect tank, primary filter and feed pump as well as battery and control. With the development Hatz paid special attention to developing a wide application range for OPU. The focus is mainly on machines like lifting platforms, hydraulic power packs, forestry machines and drilling equipment as well as stationary applications like pumps and generators.

Common projects

The cooling has to be accordingly compact and powerful. The target was to ensure sufficient cooling of both charge air and engine coolant also with very high ambient temperatures and permanent operation. KTR's specialists were in charge of selecting this cooling system. Franz Fuchs, Project Manager of

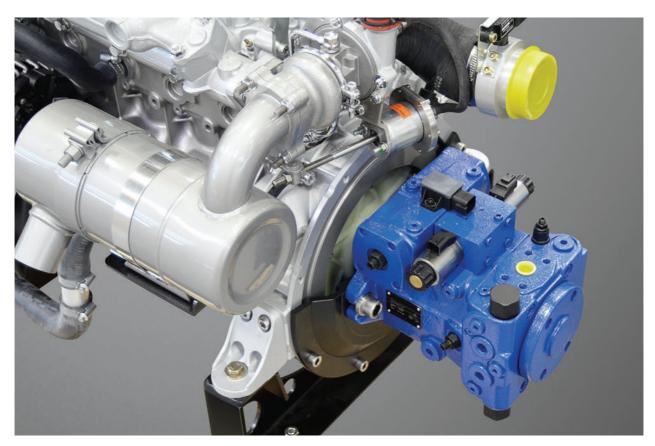
the new engine series with Hatz, explained: "We already involved KTR when we developed the engines, providing them with all details about thermal balance, ambient temperatures, volume, dimensions, etc."

On this basis the specialists located in Rheine developed a customized or dual-circuit combined cooler specifically for the engine for cooling charge air and engine coolant. For dimensioning the respective cooling components the engineers, among others, make use of the simulation software "KULI". Just as important is the experience of the persons in charge which is based on numerous projects for mobile and stationary applications in KTR.

Performance, mounting space, weight and volume as parameters

"Apart from sufficient cooling performance in any kind of application, dimensions and weight were vital factors for the development of the cooling system," Friedrich Peter, head of engine designing with Hatz, explained, "Specifically with mobile applications the space is limited – that is why every centimetre counts. Weight is another key issue - That is why the combined cooler has a high

Bulk Handling



power density and the box sizes of the OPU could be limited to 699x935x807mm (length x width x height). Here the extremely low weight of the basic engine is beneficial: Having a weight of 255 kg the overall set exceeds the weight of the basic engine by 82 kg only."

Subsequent to the common development all components of the OPU were tested on Hatz test benches during several thousand hours. Here potentials for optimization were identified and developed, always against the background of Hatz engines being globally known for a long service life, solidity and minimum service requirements. The cooling system meets this requirement.

Separate engine oil cooler and flange coupling on the driven side

There is no doubt that the combined cooler is KTR's most concise and biggest system component on the OPU of series H by Hatz, but it is not the only one: A separate oil cooler having the dimensions of 150x150x70mm is mounted on the engine side cooling the engine oil with the engine coolant.

If the engine is used as a primary unit of a hydrostatic drive, a KTR drive element on the flywheel side is supplied by the manufacturer or recommended to be mounted, respectively. In this case a BoWex® flange coupling is concerned ensuring the connection between flywheel and hydraulic pump. The curved-tooth gear coupling® serves for compensating for the misalignment in the drive train. Subject to its high torsion spring stiffness it ensures that there is no generation of any critical resonances, thus considerably adding to protecting the adjacent components as well as the overall power pack. Here a BoWex® standard flange coupling type FLE-PA as a size T55 is used installed in a standard SAE connection housing. The connection between I. C.-engine and hydraulic pump has quite short dimensions. The torsionally rigid and maintenance-free flange couplings of this series easy to install have been used on various hydrostatic drive systems for some decades.

In contrast to the cooling systems where series H by Hatz represents the first cooperation with KTR Rheine who have supplied flange couplings to the Lower Bavarian manufacturer of diesel engines for many years.



Author: Joachim Grunwald, Product Manager for mobile cooling systems in KTR Rheine

Experience zero leaks with a true knife gate valve

For many years, plant operators have battled with leakage problems, searching for valves which will isolate the flow and prevent leaks to the atmosphere, but are often left feeling frustrated and out of pocket.

External leaks from valves during valve cycling are common

problems for plant operators around the world. These leaks can have disastrous consequences, contaminating the environment and endangering workers with hazardous materials, resulting in major down time for the company.

Delta Industrial[™] knife gate valves can guarantee plant operators in difficult process applications, zero leakage, John Abbott, Weir Minerals Global Product Manager for Valves confirms.

"This isolation is very important because it ensures safe and consistent plant operation, minimises downtime and provides lowest total ownership cost," he says.

Zero Leakage

"Our customers can install Delta Industrial[™] valves into problem areas secure in the knowledge that they will achieve long term performance with exceptional isolation results, protecting their people, their plant and their environment," Mr Abbott continues. Protecting the environment and ensuring hazardous materials do not harm workers is of prime importance for every site around the world.

Weir Minerals Delta Industrial™ guided shear gate valves are designed to repeatedly close and provide bi-directional zero leakage isolation no matter what the process fluid may contain.

'Our knife gate valves guarantee no process will come past the closed valve, even abrasive slurry or when operating under high temperatures,' John Abbott proudly states.

This is a significant feature of the Delta Industrial[™] valves and one which provides numerous important benefits to the customer, providing some insight into why Weir Minerals acquired and continues to invest in Delta Industrial™.

History of Delta Industrial™ Valves, Inc.

Delta Industrial Valves, Inc. was founded in 1987 and the company began designing and manufacturing high quality knife gate valves in 1989. At the time, they recognised the urgent requirements within the market for a superior knife gate valve.

> It is an established industry leader in the valve industry, and with the backing of Weir Minerals, will continue to pave the way in high quality knife gate valves for its customers.

"Weir Minerals acquired Delta Industrial Valves, Inc. in July 2015, increasing our market presence in Hard Rock Mining, Oil Sands, Pulp and Paper and Power Industries by expanding our portfolio of valve products,' Mr Abbott states.

Weir Minerals is a global leader in the Mining and Oil Sands markets and the acquisition of Delta Industrial Valves, Inc. strengthens our comprehensive offering to customers with a range of high performance knife gate valves for heavy duty slurry application and high pressure environments. 'Weir Minerals always strives to provide the best possible service to our customers, offering new ways to increase their efficiency and reduce costs,' he says.



Not all knife gate valves are the same; many allow for leakages which can leave plant operators exasperated.

When asked what makes Delta Industrial™ knife gate valves different from many others on the market John Abbott replied, "Their construction provides a zero leakage guarantee to external environments due to their unique transverse seal design, couple this with Delta Industrial's long history in the design and production of valves, it consistently proves to be one of the highest performing valves in these heavy duty applications"

While many different types of knife gate valves have been designed and manufactured since the 1950s, they have all had serious limitations; the Delta Industrial[™] shear gate design combined with its unique seating arrangement ensures exceptional pipeline isolation and zero leakage to the atmosphere, resulting in performance our customers can rely on every time the valve operates.



Bulk Handling



"Although there are at least five distinct types of knife gate valves marketed in the industry, we only produce absolute knife gate valves in our Delta Industrial™ range, capable of cutting, shearing, and closing against solids while still producing a tight shut-off,' he says.

This unique knife gate valve design is capable of offering the highest performance in the most severe applications where solids are in solution, suspension or both. This makes it the world's premium isolation valve for scaling applications where traditional valves are inoperable due to cementation or precipitation of solids.

"What's great about our Delta Industrial™ knife gate valves is that they even operate in clear solutions, an area where traditional knife gate valves are not appropriate", Mr Abbott continues.

Customer Benefits

John Abbott says that they can design and build a tailored valve solution for customers if they have a special requirement, "providing them with a unique solution to their specific application."

"Our knife gate valves have demonstrated their ability to deliver low costs of ownership over the life of the valve, resulting in reduced downtime and increasing productivity for our customers," he says.

The valve manufacturing process employs tight tolerances and minimum clearances to ensure reliable performance and the longevity of the highly engineered product, "our customers benefit from consistent performance and lower maintenance.

Applications and Projects

"The Delta Industrial™ valve is designed to work in severe service applications, providing customers from a range of sectors, superior performance at high pressures," Mr Abbott

They are currently utilised in many industries, John Abbott draws attention to three sectors in particular where the Delta Industrial™ knife gate valves excel.

"Within the Oil Sands sector, the Delta Industrial™ knife gate valves provide innovative, custom products that are well suited for the harsh process of this industry. The valves are

heavily entrenched in the Oil Sands process, where performance is critical and leakage, both external and internal, cannot be tolerated.

For Pulp and Paper Mills, we can provide Delta Industrial™ knife gate valves for use in a range of processes including, refiners and heavy duty cleaners, areas where traditional designs often fail to perform. The Delta Industrial™ designed valves work flawlessly in the most difficult applications, preventing untimely and costly shut downs.

Lastly, Delta Industrial™ knife gate valves are ideal for Power Generation applications because of their reliable performance and low maintenance requirements," he says.

Delta IndustrialTM knife gate valves have made a significant impact on many applications but there is one in particular that comes to mind as a standout success.

"A large international mining company was repairing a major valve on their tailings line every three months. This was proving to be extremely inefficient and costly. They asked us to help solve this problem which was costing them time and money. A Delta Industrial™ knife gate valve was specified and installed, this valve has now been operating for four years without any unscheduled maintenance."

The future for Delta Industrial™ valves

The team at Weir Minerals are currently working on complementing their range of ASME 600 rated valves. There are also developments currently being tested which will provide enhanced performance in high pressure applications. "We are all very excited about the product development and new design innovations to help our customers and cannot wait to see these unfold," Mr Abbott says.

Unlike many other knife gate valves, Delta Industrial[™] valves guarantee no process fluid will sneak past your closed valve; protecting your people, plant and the environment.

To ensure you maintain consistent plant operation and minimise downtime, utilise a zero leakage valve on your site.

To find out more about our range of Delta Industrial[™] knife gate valves please view our product page. Alternatively, contact your local Weir Minerals representative who will be more than happy to discuss the benefits further.





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BULKOS Bucket Elevators for Vertical Transportation of Bulk Materials

RUD Chains Ltd is one of the world's largest manufacturers of round steel chains, producing top quality chain components and systems for a wide variety of markets and applications. They supply the bulk materials industry with a range of: complete bucket elevators and spare parts, complete conveyor systems and drive systems for bulk materials handling.

RUD BULKOS complete bucket elevators are typically suited for vertical conveying applications for powdery, granular, lumpy and high temperature bulk materials. They are used across a range of industries for the vertical transportation of goods such as: fertiliser, potash and salt, cement, sand and gravel, among other materials.

The bucket elevator range consists of BULKOS round steel chain type bucket elevators, high performance central chain bucket elevators and belt type bucket elevators. Due to RUD's wealth of experience transporting cement, lime, gypsum, salt and fertiliser, all their bucket elevator components are perfectly coordinated to provide a reliable, long-lasting system.



BULKOS round steel chain bucket elevators enables handling of materials under the toughest of conditions, such as high temperatures or bulk flow rates. The elevator offers multiple link bucket attachments which are extremely robust and ensures a high level of safety during the transportation of goods.

High performance central chain bucket elevators are used to provide maximum conveying capabilities in extreme conditions, and to meet high speed conveying requirements.

BULKOS belt type bucket elevators are reinforced with textile or steel inlays. They ensure easy transportation of materials, even at the highest of conveying heights.

The transportation of bulk materials is a major challenge, system availability and reliability are often overlooked and quick solutions are used which only secures limited success. RUD are a valued supplier and experienced manufacturer supplying a selection of conveyor and conveying systems for the bulk materials industry.



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Custom container pivot attachment turns recycling upside down

To help empty wood chips quickly from containers in a recycling application, Hyster has developed a custom container pivot attachment on a ReachStacker.

"The customer works in recycling and transports containers of wood chips using lorries and trains. Their challenge was finding an efficient way both to empty 20ft containers of wood chips into the yard at their recycling terminal and transfer the bulk goods from one container into another," says Chris van de Werdt, Commercial Manager for Hyster® Big Trucks.

The Hyster® Special Engineering Department developed a solution where a custom container pivot attachment was added to a RS45-31 CH ReachStacker to allow the 20ft containers to be lifted and pivoted. This tipping motion allows the correct flow of wood chip from the container, making it far easier to empty.

"The attachment is capable of pivoting containers up to 60-degrees and is designed to carry the containers off-centre to enhance the stability of the entire ReachStacker so it can empty the wood chip in one simple, well-controlled and efficient movement," says Chris. "This customisation has resulted in the easy, efficient and cost effective transport of wood chip for the customer."

The tough Hyster® RS45-31 CH can handle general cargo including 20' containers in a diverse range of applications. Its robust frame can take on the heaviest cargo, with a load capacity of 45 tonnes when not pivoting or up to 32 tonnes when in the tilted position.

Balancing strength with agility, the Hyster® RS45-31 CH has outstanding manoeuvrability and superior handling speeds, particularly while rotating containers at up to a 60-degree angle. The powerful engine gives the extreme power needed to handle even the most challenging recycling applications.

"The recycling industry requires a specific set of features alongside reliability that minimises downtime in what can be a 24/7 operation," says Chris. "The Hyster® ReachStacker range offers the toughness needed for these demanding applications but in this instance, a very particular customisation was developed to ensure more efficient, easy and cost effective operations."

The Hyster® Special Engineering Department is located at the Nijmegen plant in the Netherlands, the global centre for Hyster Big Trucks design, development and testing.



HUB Features 2016

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

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November 16

IRISH Special Spotlight on Ireland
POLLUTEC 2016 Show Preview

QUARRYING - Asphalt & Concrete plant + associated equipment. Concrete retaining walls & storage solutions.

RECYCLING - Compaction, baling and wrapping equipment - waste compactors, cardboard balers, waste balers, vertical balers, horizontal balers, baling twine, balers, mill balers, baling equipment.

BULK HANDLING - Biomass industry equipment and technology. Processing of Energy from Waste. Editorial copy deadline 5th November 2016 Advert copy deadline 15th November 2016

January 17



CONEXPO Exhibition Preview National Fluid Power Centre Exhibition & Conference Preview

QUARRYING - Washing and screening technologies, equipment and plant including sand plant, cyclones, barrels, scrubbing, rinsing, separation, drying, classifying and fines treatment. RECYCLING - Excavator Attachments, Screening Buckets, Crushing Buckets, safety couplers.

BULK HANDLING - Power transmission and motion control featuring fluid power systems, hydraulics, pneumatics, electronics and control.

Editorial copy deadline 5th January 2017 Advert copy deadline 15th January 2017

March 17

CQMS Exhibition Preview

QUARRYING - Mobile and static crushing and screening equipment. Crusher spare and wear parts. Screens and screen media.

RECYCLING - Waste sorting and separating equipment and solutions for the waste industry. **BULK HANDLING** - Weighing technology,

weighbridges, and on-board weighing. Editorial copy deadline 5th March 2017 Advert copy deadline 15th March 2017

May 17

PLANTWORX Exhibition Preview WASTE Exhibition Preview

QUARRYING - Dump trucks, excavators & wheeled loaders. Tyres and tyre chains, wheel washing equipment.

RECYCLING - Aggregate recycling. **BULK HANDLING** - Conveyors and elevators, feeders, chutes, hoppers and silos.

Editorial copy deadline 5th May 2017 Advert copy deadline 15th May 2017





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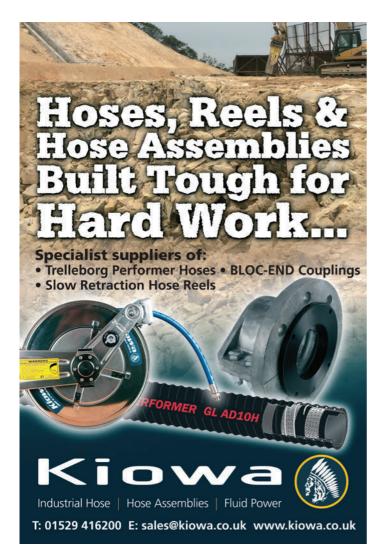




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