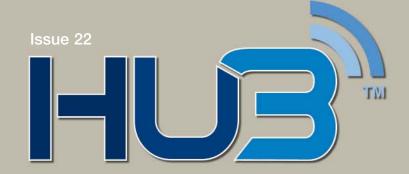
Global News & Information on the Bulk Materials Handling, Recycling & Quarrying industries

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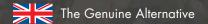




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WYG saves minerals extraction company significant money

Aggregate Industries should save more than £100,000 to achieve their final site restoration of wetlands and water features at their Newbold Quarry in Barton under Needwood, thanks to WYG facilitating a waste recovery permit.

After negotiations, between environment experts from multidisciplinary consultant WYG and the Environment Agency (EA), over the strict guidelines surrounding the management and use of waste materials the waste recovery permit was approved. The permit allows the site to be restored through the importation and recovery of 1.7 million cubic metres of inert waste and pulverised ash as part of long term restoration plans. The result could lead to significant benefits to the industry as a whole.

Whilst the local EA officers supported the application, the first response from the EA's national recovery team was they perceived the work to be disposal. This would have meant Aggregate Industries would require a more stringent disposal permit to fill and restore the quarry which would have required the minerals extraction company to spend hundreds of thousands of pounds.

Michael Jones, Principal Consultant, WYG said: "WYG and Aggregate Industries disagreed with this view and we successfully persuaded the national recovery team that this was in fact a recovery operation and not a disposal.

"This decision will be valuable for the mineral industry and opens up the opportunity for other companies to seek a recovery permit, potentially saving the industry millions. It is the right result in terms of balancing adequate protection for the environment with giving Aggregate Industries a sustainable quarrying operation and minimising their costs.

"Throughout the negotiations we clearly showed the EA that the materials to be used, which facilitate plans to provide a community park made up of lakes, woodland and agricultural land, were a suitable replacement for nonwaste material that would otherwise be used to achieve the restoration and meet the Waste Framework Directive and European case law's legal requirements."

Under a disposal permit, Aggregate Industries would have been required to undertake expenditure on large quantities of engineering, other additional works and environmental monitoring that would have run into the £100,000's, over the life of the site.

Tim Claxton, Senior Estates Surveyor, Aggregate Industries said: "We are delighted with the outcome and can't thank WYG enough, this is not just a result for Aggregate Industries but also a result for the industry as whole, arguing the principles of recovery versus disposal and fundamentally for quarries."

The 160 hectare site, off Lichfield Road, currently has planning permission for sand and gravel extraction until December 2015, with restoration to be completed by December 2017. The long term restoration plans for the site are to provide outdoor recreation for the local community with the intention that the area will develop a diverse ecology, become home to a wide range of wildlife and will be an ideal venue for a variety of informal and formal recreational activities.

www.wyg.com

Cover Story





This year MB presented two gems:the BF 150, with its 10 tonnes of weight and title of biggest bucket in the world, and the MB-L, the smallest crusher made by the company.

Suitable for diggers of 70 tonnes and upwards, the new BF 150.10 is the ideal product for those working in large quarries, as it is capable of great achievements in terms of productivity and efficiency. For much smaller pieces of machinery on the other hand – buckets, mini buckets, backhoe loaders – the new MB-L is a true gem of efficiency and practicality: small, manageable and with a very high production yield, it is capable of crushing any type of material and of satisfying many MB customer needs.

These are the intrinsic values of MB, which have brought the company to a leading position in just a few years, now seen as an Italian representative of research in design and technology in the building sector.

A reason for great satisfaction of MB S.p.A. has been the coveted first prize awarded at the Gran Prix of the International Exhibition of Inventions of Geneva, the most important trade fair worldwide both in terms of internationality and the highly qualified panel of judges. At this event, the company emerged as a winner competing with over 700 inventions, presented by 650 companies from 45 different countries, for the innovating principle of its bucket crusher and consequent benefits in terms of performance and reduction in costs for the end user. For twenty years, Italy had remained on the sidelines while others received the first prize at the Geneva Exhibition, yet another reason behind the great pride of MB on receiving this award, in recognition of the advanced technology of its products.

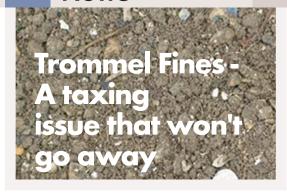
The acclaim and recognition for the innovation and added value of products by MB S.p.A. comes from many corners of the world. The numerous awards received at major sector events in Spain, Croatia and England, such as the award from the Spanish Ministry of the Environment, were followed by the Pigafetta Award for product internationalisation, received from the Vicenza Chamber of Commerce and the First Prize in the category Product of the Year at the Edilportale Marketing Awards.

All testimony to the fact that this company strives with determination and team spirit to produce new ideas and better quality, making for competitive work of their clients, the company's major sponsor.

For more information, you can visit MB website: www.mbcrusher.com MB S.p.A. Tel. +39 0445 308148 info@mbcrusher.com



News



Dr Richard Coulton, managing director of recycling solutions provider Siltbuster Limited, believes local authorities and the waste industry need to work together to deal with the challenges posed by the Government's latest moves to close the loophole surrounding trommel fine landfill taxes.

"Last month's clarification on the taxation of trommel fines has created a great deal of debate in the recycling sector. While there has been a lot of media coverage on claims of potential job losses across the recycling sector, very little space has been given to the practical implications of the tax increasing from £2.50 to £64 per tonne of waste material, and how businesses deal with the new regime.

While there are plenty of critics of the HMRC clarification - claiming unfair hikes in taxes and inevitable redundancies - let's not forget that this move has been mooted for some years and is, in fact, the closure of a loophole that has been exploited for years. There has been far too much operating 'under the radar' when it comes to the definition, disposal and taxation of trommel fines, with many thousands of tonnes of un-segregated waste going to landfill illegally.

The real question here is: what do recycling companies, construction businesses and local authorities do as a result of the new tax regime? Clearly, a far more disciplined approach to segregation is needed, as well as a serious consideration of technology that can sort waste materials into inert and non-inert categories.

After all the headlines have gone, we will be left with the reality that the UK has limited landfill capacity and we need to find new ways of sorting, recycling and diverting waste. Now that we have clarity on the tax rules from the HMRC, as a recycling industry, we need to work together to deal with the challenge.

It is no secret that the UK has the manufacturing know-how, technology and capability to deal with the issue of trommel fines - effectively separating waste materials down to their constituent materials so that inert and non-inert arisings can be identified and correctly managed. Traditionally, the temptation for some in the recycling sector has been to take the cheapest route and continue dumping non-inert materials into landfill at a rate of $\pounds 2.50$ per tonne as long as they can get away with it. Clearly, the rules of the recycling game have now changed and we all need to investigate economically viable ways to segregate waste at source.

www.hub-4.com/directory/13117





Terex Finlay award 3 Crown dealer status to UK dealers

Terex Finlay have awarded their highest accolade to Finlay Group (UK) and Finlay Scotland, the 3 Crown Dealer Award.



"The 3 Crown Program is designed to recognize and reward the Terex Finlay Dealers who are investing in their Dealership and delivering a superior customer experience from sales through service and support" said Nigel Irvine, Sales and Marketing Director.

The 3 Crown Program has some key goals and objectives which:

- Help Create Standards and Expectations globally for all current and new distributor partners
- Recognize Dealers who continuously grow their capabilities and expertise
- Differentiate our offering from our competition
- Enhance Training Schools and Improved support through New Online Tools
- Reward those Dealers who are investing in their Terex Finlay dealership and delivering a superior customer experience from sales through service and support.

The Terex Finlay 3 Crown Program is a balanced performance and customer satisfaction rating and reward program that involves all aspects of a Terex Finlay dealership. The 3 Crown Program focuses on four key areas of the Terex Finlay Dealership operation:

- Terex Finlay Machine Sales & Development
- 2. Financial Capabilities & Performance
- 3. Customer Support & Experience
- 4. Business Development & Process

The Terex Finlay Dealers are audited and scored on a quarterly basis and achieve points for growth and improvement in the four key areas. The 3 Crown rating system is designed to be accessible by all dealers regardless of the size or location of dealership.

Paul O'Donnell, Global Business Line Director said "On behalf of Terex Finlay I would like to congratulate Finlay Group (UK) and Finlay Scotland for the hard work and effort they have put into their business's to improve the customer's all round experience of the Terex Finlay products".





Best Practice the goal for Manitou UK Limited and Mentor Training

Manitou UK Limited is pleased to appoint Mentor Training as the official training provider for their range of materials handling and powered access machinery.

Delivering Excellence

The need to adopt best practice is particularly important in the safe operation of mobile plant and equipment. As a significant part of their strategy to deliver excellence to the marketplace, Manitou UK have appointed Mentor Training to deliver fully accredited operator and instructor training.

Mentor Training, based in Chesterfield, Derbyshire are a national plant operator training company and the largest organisation of its type in the UK. With over 150 certificated instructors, 45 support staff over 3 locations they achieved an impressive 30,000 training days in 2011 across 3000 companies.

Mentor specialise in accredited training for all types of forklifts, powered access platforms, telescopic handlers and mobile plant including skid steer loaders. They work closely with the accrediting bodies and industry associations such as IPAF, AITT, MPQC, NPORS and EUSR. This ensures that the training courses delivered remain relevant, up to date and fully comply industry best practice and the latest legislation.

Emily Bonsall, Marketing Manager of Mentor Training: "Proficient and well trained operators not only makes sense from a Health and Safety dimension, but also prevents damage to equipment, storage areas and stock. It is also proven that correct operation maximises the fuel efficiency of the machine. Manitou is a well respected machinery brand which Mentor Training are pleased to be working closely with to enhance the productivity and efficiency of the equipment."

Jonathan Tapp, Sales Director of Manitou UK: "Customers who invest in quality machinery demand that the equipment is well utilised and provides a return on investment. The same principle applies to the operation of the machine, whether it is working on a building site, farm or being despatched from a dealers yard. Mentor Training is a highly professional company with the flexibility to deliver the very best in operator training to our dealers and customers' "





Hi-Force, the Daventry headquartered, global high pressure hydraulic tools provider has continued with its ambitious expansion plans throughout 2012 and beyond.

In March this year Hi-Force Daventry manufacturing facilities took delivery of a further Mori Seiki NMV5000 5 axis CNC machining centre. Valued at almost £700,000 this brand new addition to the Company's existing fleet of eight Mori Seiki machines, includes a five pallet loading system making it the most efficient (and costly) machine purchased to date!! The five pallet system reduces machine down time by switching machining operations between pallets, whilst the operator loads raw material or removes completed items, meaning that the machine never stops machining! It also has the facility to complete multiple machining operations on individual products, by switching from pallet to pallet, which allows completed product to come off the machine faster than if each machining operation is completed in batches. Plans to buy this machine were actually brought forward by a year due to high demands on our machine shop which currently runs for 16 hours per day, five days a week. Weekend and night shift operations are fast moving up the list of requirements for the Daventry manufacturing facilities.

Most recently, Group Managing Director Kevin Brown confirmed that the planned expansion of the Daventry manufacturing facilities has now been given the green light and construction of an additional 2,200 square metres, to add to the existing 4,800 square metre facility, which

Hi-Force Daventry manufacturing facilities receives a Mori Seiki NMV5000 5 axis CNC machining centre to add to its impressive fleet of 8 Mori Seiki Machines.

will commence later this month. The construction, in collaboration with Daventry District Council, is a fast track project and the contractors are anticipating handover to Hi-Force by latest end of April 2013. The new building will be used specifically for all of the UK logistics requirements, including goods inwards, goods outwards and storage of finished products as well as raw materials. During the announcement, Kevin explained that: "By moving our complete logistics operation to the new building it will free off an additional 1,000 square metres of space in the existing building, for further expansion of both our machine and assembly shops. It is anticipated that this, combined with the purchase of four more CNC machines, plus further additions to the existing workforce of over 65 people here at the UK facility, will result in a 50% increase in our manufacturing capabilities. The existing road (Morris Road) between the two buildings will be closed off giving the Company a further 600 square metres of secure yard area".

In readiness for the expansion in Daventry, Hi-Force is currently looking to recruit nine additional employees in Engineering Design, Stores & Logistics & Assembly, plus CNC programmers, setters and operators in their "state of the art" and fast expanding machine shop. You can find details of all vacancies on the hi-force website www.hi-force.com under the news section.

All in all these continue to be exciting times for Hi-Force, a Daventry headquartered and independent, privately owned Company, which continues to expand and prosper under the leadership of Kevin Brown and his hard working management team. Hi-Force also has regional offices in Australia, Abu Dhabi, Azerbaijan, China, Dubai, Holland, Malaysia, and South Africa.



New Shropshire materials recycling facility creates new jobs

An investment of £1.5 million in a Materials Recycling Facility (MRF) at Tudor Griffiths Group's Wood Lane facility in Ellesmere, Shropshire, will recycle 90 percent of waste materials brought in to the site and vastly reduce the amount of waste sent to landfill.

Managing director, Tudor Griffiths said: "The TG Group's MRF is Shropshire's most progressive waste management facility and will rank alongside the very best in the country. We believe this investment is good news for our company, local employment and the environment."

The facility has been carefully designed and constructed in conjunction with McPhillips, the Civil Engineering and Building Development Company based in Telford. Every aspect of the plant has been carefully considered to provide environmentally sustainable features including; the use of low energy lighting, an ergonomically designed picking station, a system to harvest rainfall from the plant's roof and use it on-site for washing vehicle wheels and making use of electricity generated from its efficient on-site power plant

For every container of waste processed at the MRF plant, more than 90% of its contents are re-claimed and recycled. Wood, bricks, metal, paper, cardboard, ferrous metal and many more materials are all separated and recycled into usable products. The soil that is removed is used for restoration projects.

Although less than 10% of the waste processed ends up on a landfill site even this is not unproductive. The landfill waste produces methane, which is captured to help produce the electricity that powers the plant and local community.

An informative booklet, produced by TGG is available on request and describes the MRF process and what it means to the local community.



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News



RUD Chains Ltd, latest Innovation exhibited at Hillhead 2012, **Bucket Connection** system 2WIN

RUD Chains Ltd, a leading manufacturer of Tyre Protection Chains and highly wear resistant chains for bucket elevators and conveyors attended Hillhead 2012, exhibiting an array of their products. RUD displayed an impressive stand presenting their innovative Tyre Protection Chains and their latest innovation, bucket connection system 2WIN.

Their latest innovation 2WIN represents a major change from traditional bucket connection systems. One of the shortfalls of the traditional system is that it requires the chain to be cut then inserted into a Dtype shackle at each bucket this single link connection supports the full weight of the system, sometimes creating dimensional differences in the brackets and chain that, in turn, can result in low efficiency and noisy operation.

The 2WIN system allows buckets to be installed without cutting the chain. The attachment fastens to the chain, spreading the bucket weight across three links, which, according to RUD, results in a number of significant performance advantages

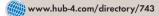
• Compact attachments which fit directly onto the bucket with a simple bolt-on connection.

- Continuous chain strands create smoother operation - leading to significantly reduced wear rates on the drive components and bucket attachments.
- Better engagement characteristics with sprocket and reversing wheels - delivering improved power consumption and extending drive component service
- Full compatibility with existing chain-type systems and DIN standard buckets.
- Components are all designed for the simple conversion of existing belt and DIN system chain bucket elevators.

The innovative 2WIN connection offers a greatly enhanced design, creating a superior bucket elevator solution for all material handling applications.

RUD offer standard and specialised applications to meet the specific demands and requirements of your working environments. As a leading manufacturer and innovative product provider you can be confident in the decision that RUD will deliver top quality products, unrivalled support and technical advice to help meet even the most challenging circumstances

For more information follow RUD Chains Ltd on Facebook & Twitter or visit www.rud.co.uk





A drive towards competitive advantage

The modern production environment demands reliability and flexibility from plant equipment, allowing it to cope with the wide range of variables which may occur. This is essential if high productivity is to be sustained and profit levels to be maximised.

Rexroth puts you in touch with leading engineers in heavy systems engineering incorporating hydraulic drive systems and controls, servo drives and controls, pneumatics, linear and factory automation. The scope of Rexroth products for heavy engineering projects is unrivalled and thanks to its expertise in applications, provides a comprehensive service and unique solutions to all heavy industries.

Bosch Rexroth is renowned in heavy industries with its hydraulic systems technology and other products, enhanced now with unique Hägglunds direct hydraulic drives. This brings significant benefits such as starting with full load, low inertia fast response and accurately controlling torque to prevent overloads. This wide range of products and its formidable engineering knowledge, ensures the best drive and control solution for your plant.



▲ A typical drive consists of a Hägglunds motor which will provide the torque required. A power unit with a variable displacement pump/motor set and necessary tank, filters and instrumentation is also included in addition to a control and monitoring unit and the inter-piping. The arrangement is versatile and flexible which enables customisation to suit the exact requirements of the application and environment.



■ Belt conveyor for coal at power station

This Amco Birtley belt conveyor at Tilbury Power Station in the UK is 200m long with speed range up to 2.5m/sec and capacity of 3000 tonne/hr of coal from the ship unloaders. Smooth dynamic acceleration and braking enables the loaded conveyor to stop quickly and prevent flooding the downstream conveyors.



◀ Autoclave processing household waste

This Joseph Rhodes autoclave is a large rotating drum with doors each end processing household waste under pressure with steam. A Hägglunds motor drives a single pinion against a girth gear in both directions and the drum has to be stopped accurately to engage a shot bolt before the auxiliary hydraulics opens the doors for loading and unloading.



■ Agitators or mixers in process industries

Direct hydraulic drives are very suitable for agitators either top or bottom entry. They give excellent overload protection to the impeller arrangement with a wide speed range. They are far more compact and weight saving than the traditional gearbox which makes attending to the agitator shaft sealings much quicker and easier to maintain.





Many factors need to be considered when buying an ADT, including purchase price, residual value, repair and maintenance costs, carrying capacity and fuel burn.

The cost of fuel has increased so much recently that litres per hour of fuel burned has risen to the top of the pile when evaluating which machine to purchase.

Changes in legislation to minimise emissions has also led equipment manufacturers to re-design their trucks, with some going down the EGR route and some down the SCR route.

Bell opted for SCR, partly to continue its 12-year success with proven Mercedes engine technology and ensure better productivity and uptime due to operator and servicing familiarity, but also because it new SCR would return better fuel economy.

So Bell decided put its theory to the test by commissioning the Millbrook Proving Ground to conduct an independent test over two measured, timed and independently monitored track-based drive cycles.

The trucks tested were the latest Bell B30D MK6.3 and the latest VolvoA30F. Both were fitted with tailgates and 750 Wide Tyres. Manufacturers' specifications were given to the Millbrook team so they could make sure the manufacturers' guidelines were adhered to. The machines were operated by trained, independent Millbrook personnel.

To accurately measure speed, distance and location, a GPS Data logger was fitted to each test truck prior to the test commencing.

The first test was to measure and compare fuel consumption results from a high-speed steady state route, with the second test being on a more typical quarry-simulated cross country route. Both machines were ballasted to their rated payload and fuel consumption was measured over two repeatable tests.

High-Speed Steady Route

Before conducting this test the trucks were driven through a warm up schedule that consisted of three laps of the high-speed circuit at top speed of 40km/hr. The trucks were than accurately filled with fuel prior to the actual test.

The test consisted of accelerating from rest to 40km/hr for a distance of 40 km. On completion of the test the trucks were taken back to be re-fuelled and, with the Bell B30D, AdBlue usage was also factored in. The tests showed that the Bell ADT was 6% more fuel efficient.

Cross Country Circuit

The trucks were then taken 10 times around the cross country circuit, which consisted of a 3.1 km off-road test track up and down various grades, simulating on-site conditions. Under these real-life test conditions, the Bell ADT returned an astonishing 17.6% fuel advantage over the Volvo.

The results show that the harder that each truck worked, the more fuel efficient the Bell B30D became over the Volvo A30F.

When equated back to actual cost, with fuel now costing in the region of \$0.70 per ltr, based on an average fuel burn of 12 ltrs/hr, the Bell B30D saving on fuel alone equates to \$1.48 per hour.

Neville Paynter, managing director of Bell Equipment UK, said: "The tests at Millbrook pretty much confirm what we thought, and we're delighted with the results. Bell has always led the field in tuel economy, but this is the first time that our new SCR technology has been scientifically tested against one of our competitors' trucks."

He added: "It should give our customers absolute confidence that they are saving potentially thousands of pounds in fuel costs - the single biggest expense now for a plant operator."



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The CMB Rockmonster & New Rockstar cone crusher

CMB International are passionate about crushed rock as the success of our clients depends upon it. With equal focus on rock crushers, screens and crushed rock, CMB prides itself on providing effective and efficient production solutions with minimum downtime. We understand that these key components are vital to our client's production capability, therefore we produce machines that are purpose built, durable and user friendly, whilst crucially providing the desired output of a high quality product. If you have a tough application requirement, CMB will provide heavy duty crushers and screens, for a safe and affordable investment.

CMB are service focused and provide clients with first class after sales care and continued support. Buying a CMB cone crusher, jaw crusher, screen, feeder and any other product in the CMB range, is also a sound investment into a wealth of knowledge and expertise that will continue to enhance overall performance and productivity.

Latest Addition

The RS225 Rockstar 1350 Cone is the latest addition to the CMB range that also includes the RS150 Rockstar 1000 Cone.

The CMB RS225 Rockstar is a modern, state-of-the-art, all roller bearing cone crusher. The crusher features hydraulic adjustment which enables the operator to rapidly change the discharge setting if necessary during crushing.

The machines hydraulics also incorporate tramp metal release, automatic reset and an unblocking feature that will clear the crushing chamber quickly and effectively.

Re-metalling is carried out with the crushing head in situ. The short shaft configuration, which requires no top bearing, enables all major components to be removed from above and demands minimal headroom for efficient installation and maintenance.

The proven all roller bearing design features lower power consumption, longevity, easy spares availability and the need for a more compact lubrication system.

Product features:

- High outputs of excellent product shape
- Unattended operation
- Fast and simple adjustment

ww.cmb.uk.com

- Minimal maintenance
- Large unobstructed feed opening
- Takes unscreened feed

The CMB Rockmonster

The CMB Rockmonster $1\,100\times800$ is the jaw crusher that Chris Hall, our Technical Director, always wanted to design, and is a superb piece of equipment in a static and/or mobile application.

The CMB Rockmonster 1100 x 800 jaw crusher features stepless mechanical/hydraulic adjustment enabling the operator to quickly change settings. There are no shims to change or bolts to retighten which, streamlines the adjustment procedure. Welding has been kept to a minimum in the design and the massive front wall and cross beam are special heat treated castings that are bolted and pinned into position, therefore CMB have avoided the substantial stress concentrations often found in welded components.

Product features:

- High outputs of excellent product shape
- Unattended operation
- Fast and simple adjustment
- Minimal maintenance
- Large unobstructed feed opening

CMB also provide a comprehensive range of vibrating screens, Horizontal, Inclined and Dewatering Screens and Feeders that are often custom made to best fit your application. CMB specialise in replacing old screens and feeders whilst utilising the existing structure to minimise replacement costs and CMB Screens accommodate whatever screening media is specified by the client, wire cloth, polyurethane, rubber punch plate, etc.

As screen designers and manufacturers, CMB use a proven methodology to ensure correct screen sizing as outlined by the VSMA, Vibrating Screen Manufacturers Association, to determine the correct screen size for any given duty.





In addition, all CMB mechanisms are selected on the basis of providing an L10 bearing life of 20,000 hrs, most of CMB's competitors only work on 10,000 hrs. From our experience, doubling the potential life of the bearings has proven invaluable to customers, who appreciate this to customers, who appreciate this substantial extra life, and they significantly benefit from the increased production time between bearing changes due to the CMB mechanisms.





Neuenhauser provides screening solution for damp materials following the wettest June in history

Following a dismal start to the summer in which June saw the highest levels of rainfall ever recorded, many companies involved in recycling green waste, aggregates, soils and fly ash are now facing an uphill battle to screen their sodden material using conventional trommel screens.

Riverside Machinery, the UK's sole distributer of Neuenhauser equipment, is able to offer a screening solution that processes damp material thanks to the German manufacturer's range of star screens. These machines utilise a deck of rotating stars to screen a variety of material including green waste, trommel fines, soils and fly ash.



Unlike some conventional screening systems the star screen is not subject to blockages or reduced output when processing wet material therefore remaining effective regardless of the British Weather.

The Neuenhauser Star screen is available as a road-going trailer unit, independently mobile tracked unit, or fixed unit and $\check{\mathsf{can}}$ screen high volumes of material to sizes between 10mm and 80mm.

Commenting on the Neuenhauser Starsceeen's capability, Riverside Machinery's sales director John O'Neill said 'The past few months of heavy rainfall have caused a backlog of material for many material processors whose current equipment is unable to screen damp or wet material. As a result, companies that are experiencing high demand for their end-products or have restrictions on storage space may benefit from the Neuenhauser Starsceeen".

Riverside Machinery is also able to offer several tracked and wheeled Star Screens for hire. The full range of Neuenhauser machinery is also available for demonstration. To discuss your screening requirements in more detail please contact Riverside Machinery on +44 800 689 9024 or sales@riverside-machinery.com









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INTRODUCING THE NEW **684 INCLINED SCREEN!!**

The Terex Finlay 684 is a compact easily transportable machine that offers operators rapid set up and tear down times. The NEW screenbox features three large 4.3m x 1.7m (14' x 5' 7") inclined screens giving a large screening area of 236ft2 to provide efficient screening and high capacity. The screenbox features quick wedge tensioning, access holes and bottom deck hydraulic tensioning system to reduce time required for mesh changes. All four discharge conveyors are adjustable and hydraulically fold for transport. The fourth product 'oversize plus' conveyor has variable tilt and side slew to accurately discharge material for recirculation and stockpiling.

Features:

- NEW triple deck 4.3m x 1.7m (14' x 5' 7") screen with full catwalk access.
- The fourth (oversize plus) conveyor provides variable tilt and slide slew capability to accurately discharge materials for recirculation to crushers or for stockpiling.
- Maximum utilisation of three 4.3m x 1.7m (14' x 5' 7") decks provides ultra-efficient screening capabilities even at small aggregate sizes.
- A combination of quick wedge tensioning, convenient access holes and hydraulic tensioning on the bottom deck ensure mesh set up and change out times are kept to an absolute minimum.









www.terexfinlay.com





Recycling; Break the trend

It is feasible for a company receiving excavated trench waste to process 100% of incoming material with the Allu Bucket to go straight out of the door as backfill. Due to the Allu's Screening/Crushing process,

much of the material is crushed and broken down leaving oversize material that is often a minimal amount of clean

With typical weather in the UK being wet and clay being common in most excavated material, most recycling facilities can expect material coming through their gates to be problematic

with traditional methods. A common practice is for material to be put over a deck screen numerous times. A costly process which often leaves large stockpiles of 'reject' material. Chris bell of Finlay hire Ltd said . "I'd urge anyone with that growing stockpile of problematic material, such as clay and hard-core that has been over a screen ten times with no results or left to dry for weeks on end to consider the ALLU range". Existing systems can be

complimented by an Allu unit to ensure maximum capability.

HBM Reinstatement

ALLU has been a pioneering manufacturer in the process of creating HBM materials for reinstatement, helping many utilities companies reach their 'zero to landfill' goals. Whether mixing manually using the ALLU Bucket, with the ALLU Dosing System or the highly accurate SureMix SM50, a recycling process can be set up close to any project where excavated material is brought for treatment, reloaded into the same grab truck and reinstated back into the trench. David MacLynn of ALLU said "It has tremendous potential, particularly for utility contactors, and there are substantial saving to be made as it

Pipeline, In Situ

With the associated costs of supplying virgin aggregate as pipe bedding along the entire length of a pipe laying project, the benefits of creating this product in-situ using the ALLU system is clear. Being arguably the principal use of ALLU buckets, this application is common across the world with ALLU being the original brand and the manufacturer of choice. Where the excavated material is unsuitable for use as pipeline bedding, the ALLU can be utilised to process waste material from recycling yards to achieve suitable pipe surround as

eradicates landfill, transportation and other

associated costs. HBMs are tried and tested"







an alternative to expensive virgin aggregate. The Allu is also used to process the backfill above the pipe surround to meet compaction requirements that could otherwise necessitate virgin aggregate. The possible savings in this application by using an Allu Processing Bucket are immense.

Remediation and stabilisation

The ALLU Stabilisation Bucket, is the ideal tool in the application of ground remediation, allowing for the aerating, mixing and addition of compounds (lime, binder, etc.) eliminating the need for static machinery and combining loading and movement activities with remediation. Using ALLU in bioremediation over traditional methods yields better oxygenation in soil, better biological product and increased quality bacteria life. Contaminated ground by its nature is likely to contain a varying level and type of contamination. ALLU units can process material from oily sludge to thick clays with the ability to screen out and tip potentially damaging debris. ALLU Stabilisation Buckets have been used with great success

on project such as the Kingsnorth power station project which involved the excavation of ground, heavily contaminated with bitumen, often still in the barrels. ALLU often remains the only solution for many remediation projects.

The SureMix has the ability to add controlled amounts of lime/cement/Bentonite/PFA into material as well as water and bioremediation agents with production rates in excess of 120 tph. The SureMix SM50 ensures highly accurate and consistently mixed material, creating a detailed summary of its activity. The continuous mixer chamber was designed to break up and mix material thoroughly after initial dosing to ensure a granular product with minimal 'balling'.

Endless applications

With hundreds of possible application The Finlay Group are keen that customers with problematic material streams take advantage of their ability to demonstrate a wide range of ALLU variants on site. For more information on applications visit finlayscreen.blogspot.co.uk or contact The Finlay Group to arrange a demonstration.

For enquiries about the sale (new, used and ex-demo) or hire of Allu products contact the Finlay Group.









Powerscreen, one of the world's leading providers of mobile crushing and screening equipment, launches the new Warrior 1400X screen.

Damian Power, Powerscreen Global Product Director said: "The new Powerscreen® Warrior 1400X offers improved performance, lower operating costs, and easier serviceability while building on the reliable foundation of our class-leading Warrior 1400 scalper."

The 1400X has been designed with economy in mind, with reduced engine running speed and enhanced hydraulics, the 1400X offers a reduction in fuel consumption of up to 15% in comparison to its predecessor. This can translate into a substantial financial saving for customers over the lifetime of the machine.

Improved versatility and design specifications are other key achievements of the Warrior 1400X, with the screening angle range increasing by 50% from 4 degrees to 6 degrees. Standard stockpiling capacity on all conveyors has increased by 25 to 30%. With the chassis riser option and the telescopic side conveyor option, the fines and mid-grade stockpiling capacity is increased to more than double that of a standard Warrior 1400.

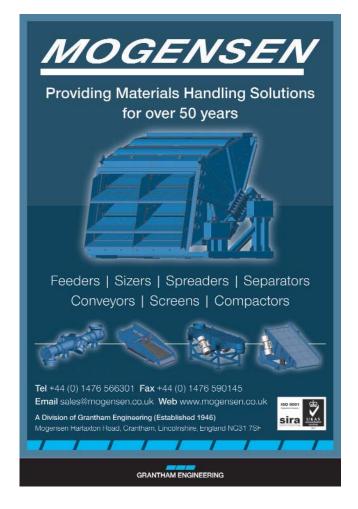
Time required for set-up and shutdown is faster than the previous model, which will be of particular benefit to contractors. Serviceability features include a class leading screen box raise function and the unique ability to raise the collection conveyor. Optimal chufe design in conjunction with the new feeder under-tray slide-out feature will minimise any potential spillage and reduce any harmful material build-up around the machine.

The Warrior 1400X now boasts improved mobility with a two speed tracking system as standard. The high speed mode is further enhanced with automatic engine speed ramp-up making the 1400X the fastest tracked machine in its range.

The Warrior 1400X can be fitted with either a Tier 3 / Stage 3A Caterpillar C4.4 ATAAC - 4 cylinder diesel engine, or a Tier 4i / Stage 3B Caterpillar C4.4 - 4 cylinder diesel engine developing 82kW (110hp) at 1800 rpm.

The Warrior 1400X was exhibited at the Hillhead exhibition June 2012. For more information on Powerscreen® crushing, screening and washing products or Customer Support, please contact your local dealer. Details can be found at www.powerscreen.com





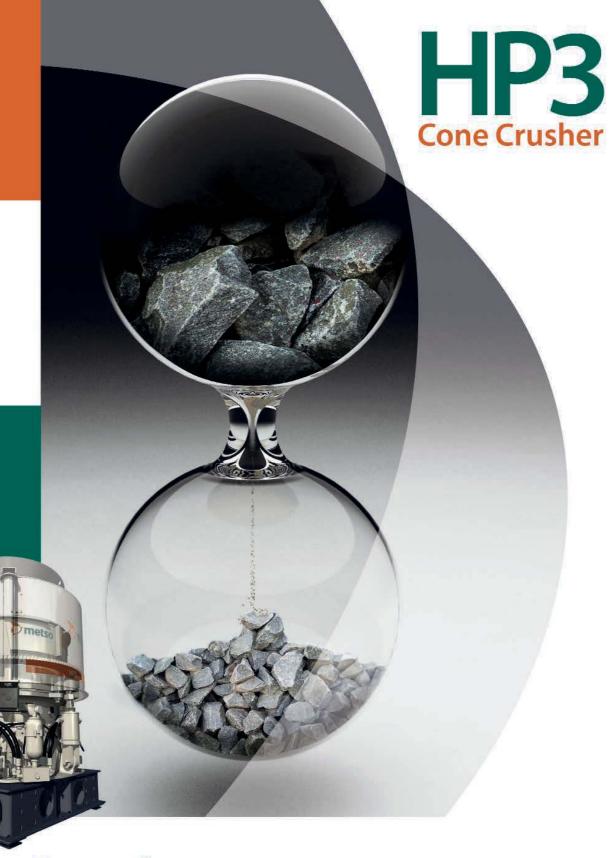




Quality End Product Shape

Reduced maintenance down time



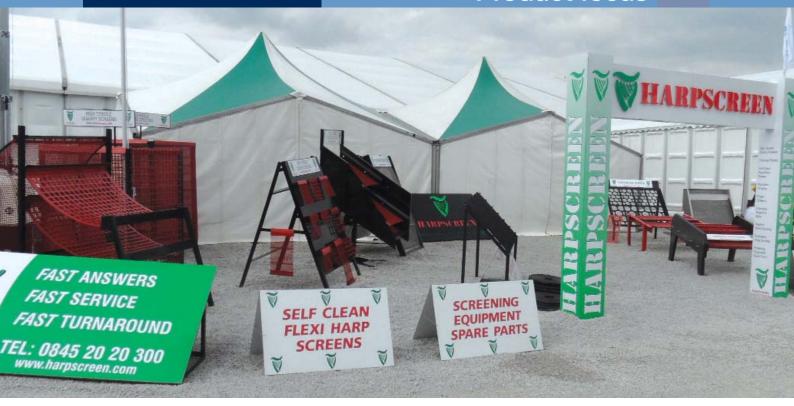


HP3 creative performance

Technologically unique, the new HP3 cone crusher offers unprecedented performance. With an output and quality of finished products markedly superior to other machines in its class, it also simplifies the flow and treatment of materials. Its safe and easy maintenance ensures maximum reliability.

HP3, the ultimate cone crusher.





£5 Million factory expansion for Harpscreen (GB) Ltd

Harpscreen (GB) Ltd, part of the Quarrytech Ltd group of companies, the largest manufacturer in the UK of screening media, have been successful in their bid for funding from the £2.4bn Regional Growth Fund.

This funding will assist Harpscreen with its £5 million factory expansion plan at their site in Haydock, Merseyside, which coupled with investment in new machinery, will increase their manufacturing capacity within the UK by 100% therefore safeguarding existing jobs and creating up to 70 new employment opportunities within the area.

Harpscreen have gained an enviable reputation over the years amongst quarry managers, aggregate companies as well as machine manufacturers for their range of quality woven wire screens. Their renowned standing within the industry has been built on offering a fast turnaround service coupled with product knowledge second to none!

This level of service has become even more crucial because of the migration by many large companies away from self operated and managed plant to sub contracted crushing and screening. This results in the sub contractors needing to respond quickly to their customer's needs.

Harpscreen are now gaining the same reputation throughout the recycling industry and with recent proposed increases in landfill tax the level of service they offer will be of even more importance.

As well as their wide range of high tensile/stainless steel wire screening products, Harpscreen also offer punched plate (flat or rolled) and various conveyor rollers. They also offer a range of rubber mats, finger and grizzly systems and other screening/conveyor accessories.

Should you require any further information on any of the products Harpscreen has to offer please do not hesitate to call us on 0845 2020 300 or email salesuk@harpscreen.com us with your enquiry. www.hub-4.com/directory/1879



Hillhead 2012 the best ever for Sandvik!

Sandvik Construction enjoyed their best Hillhead ever with nearly 3,000 visitors coming to the stand over the three days the show was held. The visitors came from all corners of the globe in order to see a broad selection of Sandvik's world renowned product lines. Additionally the visitors were able to view three brand new products that were receiving their global launch, as well as discuss their aftermarket requirements, watch live machinery demonstrations, and meet key people from within the Sandvik Construction organization.

Hillhead is now seen as the perfect place for Sandvik to show, and vitally to demonstrate, members of its total solutions product range, as it has undoubtedly become the world's leading quarry, recycling and construction exhibition. Nearly 20,000 visitors took advantage of the excellent British weather on the first two days of the show to come to Hillhead, and even torrential rain did not stop many coming on the third day. Thus, Sandvik were able to show the following products to a huge number of people:

- UJ440i heavy range jaw crusher
- QE440 tracked scalper / screener
- QA331 tracked 3 way split screener
- QE140 highly productive screener / scalper
- QJ341 best-selling tracked jaw crusher
- QJ241 compact tracked jaw crusher
- QH331 new tracked cone crusher
- DI550 tracked drill rig
- WR media new, and revolutionary screening media
- CI511 the brand new horizontal shaft impact crusher
- A selection breakers under the Rammer

One of the things which makes Hillhead almost unique amongst trade shows of its ilk is the fact that visitors are not only able to just see static displays of equipment, but also watch live machinery demonstrations. This year was no different, and Sandvik took full advantage of the possibilities presented by demonstrating the following equipment:





- Q1240 new tracked impact crusher with Pri-Sec (primary & secondary) technology
- QJ341 feeding a QH440 tracked cone crusher
- The QH440 then fed the crushed material for sizing to a QA450 - triple deck tracked doublescreen

Hugh Glandfield, Vice President UK & Ireland, Sandvik Construction, said of the show: "Hillhead has always been the perfect opportunity for us to show case our product lines and meet our customers, but this year we were truly staggered by vast number of potential new customers, and general visitors, who came to the Sandvik stand." Of the Sandvik equipment being shown at Hillhead Hugh explained - "We launched three new products this year (QH331, WR screening media and the Cl511), as well as the latest upgrades from our tracked jaw crusher range (QJ241 & QJ341) that now come with many improvements, but vitally a hydraulic operation for the main conveyor. However, the real star of the show was the stand itself; it seemed to act like a magnet to visitors to the exhibition."

Sandvik Construction would like to express a big "thank-you" to the organizers of Hillhead 2012, the members of the press for showing so much interest in Sandvik, but most of all to their customers whether they are new, old, lapsed or those that are yet to be. Without them Hillhead 2012 would not have been the success it was, and all at Sandvik Construction look forward to seeing everyone in 2014.







Watch a video demo of a Starscreener on your mobile now!



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New Metso Cone crusher now one step nearer the "Holy Grail" for cones.

(Large reduction, superior quality and high product vield)



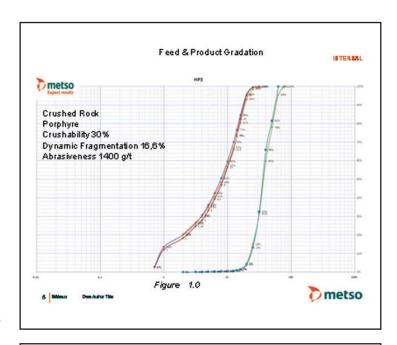
Hillhead 2012 has recently provided the ideal launch pad for the new Metso **HP3** high density crusher. However today's

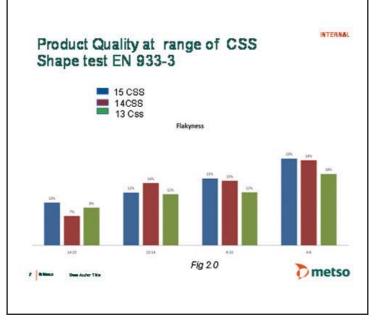
visitor to the UK quarrying exhibition needs more than a change of model designation and good paint finish to get enthusiastic about what the new design of crusher can achieve. This was never more relevant than at this year's exhibition, 3 days at Buxton where the interest in the new HP3 was sustained by visitors asking "what does it do differently and why?".

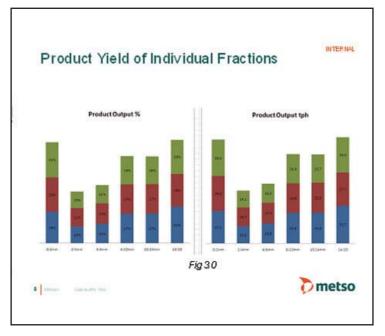
However any scepticism was soon answered by the results achieved from a production test from the 1st HP3 installed in a hard rock quarry last year. The benefit was best illustrated by the results of a challenging cone crusher application conducted with one of the first HP3 production machine last year, as part of the new product development validation

The gradation opposite top in Fig 1 confirms the feed gradation (70 x 20mm nominal feed) and the product gradations from the HP3 set at 15 14 &13mm CSS. It can be seen that this application with a reduction ration of 3.12 gains no benefit from fine material ie no 15 x 6mm material in the feed fraction.

The most impressive results of the tests we feel is the shape quality (Flake test) and % yield of 10mm and 6mm fractions, as can be seen from the analysis graphs as illustrated in Fig 2 and 3 respectively, all from first pass through the HP3 crusher. A 15% flake in the 10mm product with a yield of 24% along with 20% flake on the 6mm product would please many quarry managers today. It would be safe to say every hard quarry in the UK would benefit from this impressive performance in their product portfolio and overall cost of processing.





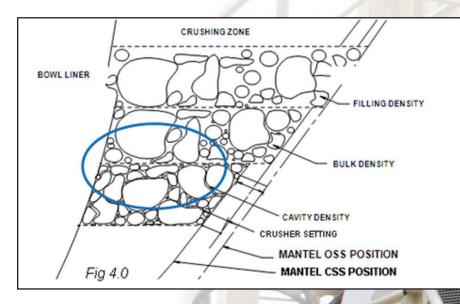


To answer the next logical question how are these results achieved?

Answer: Design of the kinematics of the crusher within Metso. This is a function of head angle, speed, eccentric stroke and chamber profile, now better understood as a result of technological advances of how crushing chambers perform.

In practise the density in the chamber has been increased such that weak stone will find it difficult to survive whereby the chamber retains it choke conditions right down to the CSS.

Figure 4.0 shows the effect of the large eccentric stroke used in the transition for open side to closed side in each gyration cycle of the crusher.



From the outside there are only small areas that have obviously changed, however internally the need for higher crushing forces have imposed many areas of change to the frame and hydraulic system which are now enhanced with thicker section and higher hydraulic clamping force.

The design of crusher is further enhanced with the IC7000 advanced crusher setting control to ensure the crusher is not asked to operated above its safe limits and at the same time maintains a consistent product and a user friendly interface used to "key in" crusher setting.

For sure this new design of high density cone crusher has moved the "horizon" for hard rock aggregate production and is already generating significant interest.

Mesto UK contact A Orr at Metso UK Rugby 01788 532100.





South Wales based equipment supplier, Plant Supply Ltd are pleased to announce they have become the sole UK dealer for the range of mobile crushing and screening equipment from Austrian manufacturer, Kormann Rockster Recycler GMBH.

Rockster manufacture a range of fully hydraulic tracked jaw and impact crushers covering a wide variety of applications. Featuring fuel efficient Caterpillar diesel engines the range of four models offer output capacities ranging from the 100 tonnes per hour R700S up to the 39 tonne, 350 tonnes per hour, R1200.

Manufactured alongside the range of crushing equipment at a state of the art facility in Ennsdorf, Austria, Rockster also build a range of screening equipment.

Some of the unique features that Rockster crushers bring to the UK market are:

Hydrostatic Drive

The conventional clutch is replaced with a hydrostatic drive system, which enables a specific adjustment of the crusher speed in line with the feed material and the precise control of the fines percentage. Hydraulically adjustable gap widths also allow individual definition of the final particle size and this is essential in many applications.

Patented Rockster Duplex-exchange-System

Rockster has developed the unique and patented Duplex-system which enables the customer to operate the same machine with different crusher units. The hydrostatic drive system facilitates clockwise or counter clockwise rotation of the crusher it is possible to install both crushing units on one and the same chassis and are changeable from impact to jaw crusher - and vice versa - within a few hours.

Crush and Screen with one machine

The compact vibrating screen RS83/94 is the perfect combination for the compact crusher and can be mounted on the main discharge conveyor belt of the crusher and is driven by an additional hydraulic service on the crushing unit. The screener removes any oversize, and gives customers two alternatives oversize can be discharged via a side belt or - in the case of a closed circuit - sent back for a second crushing process. Particularly noteworthy is the pivoting Return conveyor, which is unique in its design on compact crushing plants. Through the rotating mechanism it is useable either as return conveyor for a closed circuit or as an additional stockpile conveyor with a discharge height of 3.4 m

Plant Supply Ltd commented on the announcement; "We are very pleased to be able to offer our existing and new customers such a high quality range of crushing and screening equipment from such a well established European manufacturer. The level of detail and build quality along with Rockster's commitment to providing a fuel efficient, high capacity range of equipment is an exciting prospect for our company to be able to offer to the recycling and crushing operators of the UK.

www.hub-4.com/directory/13787



Many operators of UK Material Recovery Facilities (MRFs) could be failing to sample and measure their mixed waste streams correctly, resulting in a potential loss of value from the many thousands of tonnes of materials being processed.

Poor understanding of the tools and techniques involved are possible reasons why medium-sized and smaller plants, in particular, are not implementing adequate testing regimes, claimed Keith Freegard, Director of resource recovery specialist Axion Consulting

At Axion's recent second seminar, exhibition and networking event for MRF operators and waste management companies, Keith highlighted the importance of using accurate data that helps modern MRFs improve efficiency and produce high volumes of high quality materials to meet appropriate quality standards and recycling targets.

Speaking after the 'Science of Sorting' event in Birmingham, Keith said: "While most of the bigger players have sampling regimes in place, many smaller ones haven't. Meaningful statistics on inputs and outputs are essential if MRFs are to reduce contaminants at source and satisfy rising demand for reliable supply of quality end products into secondary re-processing markets."

Future legislative changes, Keith warned, could make sampling mandatory as part of a proposed Code of Practice, requiring all operators to implement some form of statistical control and measurement of material composition. "Sampling enables the modern multi-million pound MRF to do its job properly and should be built into contracts to provide consistency, reliability and instil confidence with customers," he added.

The event's focus on increasing MRF profitability through improving quality included waste processing industry experts sharing knowledge on the critical factors and technologies involved in designing and optimising a MRF to maximise the yield of recyclable material streams and revenue. They included Lee Clayton of Deltawaste, Andrew Hawkes of IFE and Darren Davis of Sutco UK Ltd.

Delegates and exhibitors alike valued the networking and informationsharing opportunities with Peter Bannan, of UK agents for Herbold Meckesheim GmbH commenting: "It's been very good, with inquiries that have helped us to progress projects. Overall we're pleased and will definitely return next year.

Adam Griffiths, Process Design Manager at Shanks Waste Management Ltd, said: "As a MRF-focussed event, this was certainly worthwhile and it was interesting to hear other operators' experiences."

Among the exhibitors were 360 Environmental, IFE Aufbereitungstechnik GmbH, Sutco (the new OKLM), Matthiessen Lagertechnik, Nihot Recycling Technology, R.J. Herbert, Pellenc, S+S Separation and Sorting Technology, Stadler GmbH, , Steinert, Tomra (the new TITECH) and Axion Consulting.

Axion Consulting is part of the Axion Group that develops and operates innovative resource recovery and processing solutions for recycling waste materials. The Group works with a wide range of clients, from Government agencies and local authorities to companies in diverse commercial sectors, on the practical development of new processing and collection methods to recover value from waste resources.

For more information, contact Axion Consulting on 0161 426 7731 or visit the website - www.axionrecycling.com



Demonstration Days a Great Success!



Machines on Demonstration

From Doppstadt the DW-2060K Bio Power revolutionary slowspeed shredder processed a range of recyclables, including MSW, green waste, woodwaste and rootballs, showing its mobility and versatility by being regularly tracked to different locations on the site. The SM-620 Star Screen was fully occupied tromelling compost, while the AK-530 high-speed mobile shredder concentrated on processing woodwaste. The DH-810 Chipper was put through its paces chipping virgin wood down to G30

Blue Scotland recently held a recycling demonstration days event in partnership with Fife Council, which was held at the Council's superb facilities at Lower Melville Wood Landfill Site, Ladybank, Fife. Aimed at promoting the range of plant and equipment Blue Scotland offers to the waste management and biomass markets and clearly demonstrating the environmental and economic benefits, the event was an undoubted success with over 150 guests attending over the two days in what, at best, could only be described as inclement weather! Eight recycling and materials handling machines were brought to the site, all of them demonstrating on a wide variety of materials handling and processing tasks. Alongside the demonstration area, Blue Scotland's customer Scot Heating Co, leaders in turnkey biomass solutions, showcased one of their biomass burners, with recycled of their biomass burners, with recycled and virgin woodchip being produced on site and blown directly into the working boiler, which produced some much-needed warmth at the event!

This impressive demonstration was yet another in Blue Scotland's open days programme, reinforcing the company's position as one of the leading equipment distributors and solutions providers in the Scottish recycling sector. Information on further planned open days and some exciting new Powerscreen products being launched at the Hillhead show can be found on the Group's website www.bluegroup.co.uk



Recycling

specified biomass chips, which created a great deal of interest due to the growing number of biomass outlets.

Blue Scotland offers a comprehensive range of Kiverco static and mobile MRFs and picking stations which can be customised to virtually any size and configuration to suit customers' applications. On demonstration was a static MRF which treated skip and C&D waste, removing all pickable and blowable materials from the incoming waste streams to maximise recyclables and minimise landfill volumes at the site.

The Powerscreen XH 320 Mobile Crushing Plant is designed and built for primary crushing and is ideal for both recycling and quarrying applications, featuring a highly

aggressive impactor crushing action with hydraulic setting adjustment. On demonstration, this powerful machine produced an excellent and consistent quality of Type 1 recycled aggregate from the incoming rubble waste stream.

The Marathon Gemini-Xtreme is a mid-capacity, closed-end, multi-material baler with a vertical tie system and conveyor. Ideal for baling light alloys, paper, plastics, PET and similar waste stream materials, the baler produced a standard sized bale of cardboard, cans and paper in an average cycle time of only 34 seconds. The Gemini-Xtreme was also programmed to demonstrate production of an SRF bale for export - again, creating considerable interest during the open days.

Blue Group was recently appointed UK distributor for the TEREX Fuchs range of materials handlers. The MHL331 fed the processing machines and carried out stockpiling duties during the open days, clearly demonstrating its speed, mobility and versatility in a variety of materials handling tasks. Four hydraulic outriggers provide stability for static loading work and the infinitely variable hydraulically height adjustable cab gives the operator a raised line-of-sight, which is a distinct advantage for processor feeding and contributes to operational safety with enhanced visibility during the working process.

Chris Ewing from Fife Council Waste Management operations said "We were happy to support this event, which provided an excellent networking opportunity and showcased our first-class operations at the Ladybank site. We were impressed with the machinery on demonstration and the professionalism of the Blue Scotland team".

Commenting on the Open Days event, Blue Scotland's Managing Director Austin Carey said "We are grateful to Fife Council for their much appreciated co-operation in staging these demonstration days at their Lower Melville Wood Landfill Site, which was

ideal for the event with plenty of material available for processing through our varied machines on display. The excellent visitor turnout, despite the weather, once again confirmed our belief that the kind of equipment technology Blue is able to provide to professional recyclers is creating considerable interest and shaping the future of this important industry".

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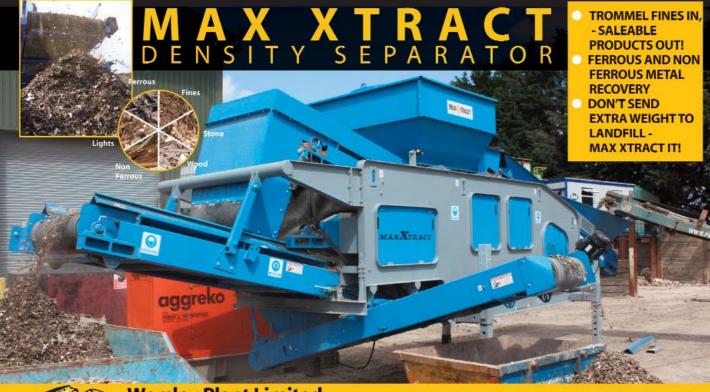
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Excell Environmental Solutions Limited of Aylesford, Kent announced recently they are signed as sole UK & **Ireland distributors of IMRO** conveyors and sorting technologies. IMRO Maschinenbau GmbH is openly recognised as Europe's best designers, developers and manufacturers of conveying and sorting technology systems to the waste recycling and materials handling sectors.

Discussing the announcement Malcolm Fletcher managing director of Excell Environmental Solutions commented he was very pleased with the outcome as a great win for the company and of course advantageous to our key recycling processor clients such as Viridor, Sita Suez and M.D.J. Light Brothers who among others have come to appreciate future proofing their investment by specifying quality German engineering matched with competitive pricing.

It should also be mentioned there is an increasing groundswell of waste processing facility owners in the UK eager to tap into the premiums paid for clean recyclate by the secondary commodity market. Now able to include IMRO products strengthens our position even further as quality providers. Excell Environmental Solution are already working closely with a number of those keen to install new or upgrading existing plant with a providence of continuing to

deliver product quality, operational efficiently, robustness and reliability cost effectiveness through lower, more efficient energy consumption over the longest operational periods.

Whether it is a complete attractively economically priced "Recyclecraft" turnkey MRF recycling plant or the standalone vertical separation plant which can be assembled and disassembled for movement from site to site, IMRO system components can be bought separately and include; non ferrous (eddy current) metal separators, electromagnetic and permanent magnet over belt separators, metering bunkers, not forgetting the ground breaking accurate, fast and flexible standalone DiscoveryLine Metal-NIR-X-Ray sensor based sorting system, delivering efficiency levels others still striving to attain.

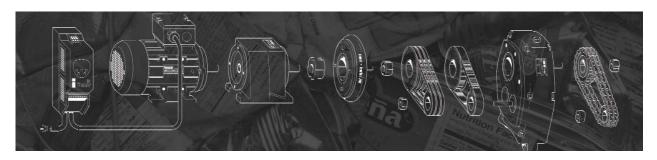
Excell Environmental Solutions is confident a key piece of the recycling systems jigsaw is now in place enabling them to confidently offer the complete MRF plant turnkey solutions or standalone systems from a single source UK provider bringing together their already renowned design, manufacture, install, service capability developed over the last 35 years of providing size reduction technology, air transport and dust control engineering as well as foam compaction and dewatering technologies.

Reinhard Ott, a founding Director of IMRO Maschinenbau GmbH commented, "Continued growth and success for IMRO is very simple, we strive to exceed our client's expectations, ensuring best quality and best value is interwoven with every product leaving our factory. We are most comfortable with Excell Environmental Solutions as our partners in the UK and Oreland. They also hold a very similar business ethic but more importantly they are highly regarded as preferred suppliers by a number of key players in the waste recycling and materials handling sectors".

To learn more about IMRO Maschinenbau conveying and sorting technologies visit our website or call our friendly support team.

Tel: 0870 428 2688 Email: enquiries@excell-es.com Web: www.excell-es.com

www.hub-4.com/directory/15128



Waste without waste - Using the right gearboxes, drives, couplings and motors in waste handling and recycling can significantly reduce long term operating costs, says ERIKS

Waste handling and recycling creates one of the toughest operating environments for all types of motion and control equipment. In particular, gearboxes, drive motors, couplings and chains have to withstand extreme loads, shock, and contamination from dust, debris and glass, plus widely varying temperatures and, in many instances, infrequent maintenance. Despite this, it is important for waste management and recycling companies to maximise machine uptime, while minimising maintenance and long-term operating costs.

Aggressive materials such as glass are typically found in waste and recycling debris and yet many gearboxes, drive motors, couplings and chains are not equipped for the challenge. Couplings, for example, often wear out fast in recycling plants owing to a lack of tolerance in their connections and the swift development of misalignment that result from incorrect installation. However, the use of improved couplings can reduce the likelihood of failure; for example, Fenaflex Tyre Couplings provide more flexibility, which allows for a greater degree of misalignment.

While the specification of improved components offers one method of increasing efficiency, the addition of one particular component offers another. The variable speed drive will not only save energy but also reduce shock loading on belts with features such as 'soft start' and programmable ramp times, minimising both maintenance and operating costs. Using a Fenner QD Inverter, for instance, to vary the speed of an electric motor can deliver significant energy- and costsavings. Inverters are not typically fitted to waste handling machines but when they are the resulting elimination shock loads can significantly limit wear and tear as well as manage energy consumption. Motor efficiency is also enhanced by upgrading to an IE3 motor, which offers even greater energy efficiency than the IE2-rated motor now required within the EU.



To combat the aggressive conditions within waste and recycling moisture, dust, abrasive particles - it is also necessary to specify rolling bearings that offer a longer lifespan. NSK Super TF and Hi-TF bearings can offer up to seven times the lifespan of alternatives made with ordinary carburised steel in applications such as waste and recycling where lubricant is contaminated.

A failure of hydraulic hose can damage profits, not only as a result of maintenance and repair costs but also the potential price of any clean-up that may be required to comply with environmental legislation. An effective way to avoid failure here is to pay attention to the minimum ben'd radius when specifying hoses, as it is stress on the wire braiding that often causes catastrophic failure. Hoses are typically subject to abrasion in the presence of aggressive substances but Gates hoses are 25 more times resistant than international standards demand.

There will never be a shortage of waste and recycling: the challenge is to process these materials in the most cost effective way, and that means relying upon the most up-to-date methods of production, state-of-the-art products and new technologies. Plant reliability is vitally important in minimising downtime and maximising uptime - even a couple of hours' downtime can result in huge losses - but a range of components are now available that can reinforce that reliability.

www.hub-4.com/directory/912

Recycling

Cometh the Hour, Cometh the Machine

HMRC trommel fines clampdown sees demand sky-rocket for Dig A Crusher's Max X Tract **Density Separator.**

The Max X Tract Density Separator has been a part of the Dig A Crusher product line for the past few years and, in truth, sales have been steady but unremarkable. Last year, the company delivered a modest 11 units. Although their use has been pioneered by some forward-thinking recycling companies keen to extract every last ounce of value from their waste streams, the vast majority of firms were content with just paying the $£2.50^{'}$ Landfill Tax imposed on the trommel waste fines the machine is designed to process.

All that changed on Friday 18 May.

Within 24 hours, Dig A Crusher managing director Sean Heron had received three confirmed orders for the Density Separators, setting an upward trend that would continue until now.

"On 18 May, HM Revenue & Customs issued a brief that said that waste fines that had previously been covered by the lower £2.50/tonne Landfill Tax rate would be charged at the full £64/tonne rate with immediate effect. This left waste management, demolition and recycling companies staring down the barrel of a huge hike in their waste disposal costs," Heron says. "Overnight, we went from offering a very good, low-volume, niche machine to having the low-cost solution to a 2,500 percent disposal rate increase.



Coming of Age

The Max X Tract Density Separator is designed to segregate stone, lights, wood ferrous and non ferrous materials from -100mm materials, enhancing materials resource efficiency and minimising the levels of material sent to landfill. Weighing just nine tonnes and fully self-contained, the compact yet durable machine can be easily incorporated into existing waste handling and extraction streams, allowing users to extract potentially valuable recyclable materials to generate additional revenue and minimise waste disposal by up to 90%. It is capable of processing up to 150 tonnes/hour.

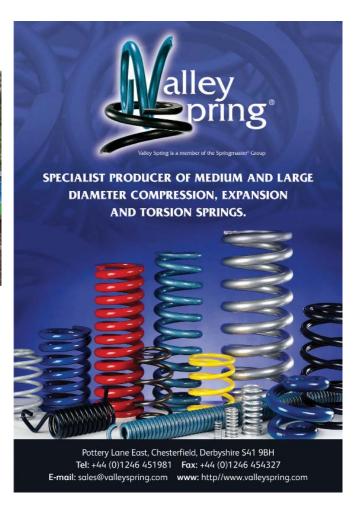


"There has never been any question about the quality of the Max X Tract or its ability to turn trommel waste fines into an additional revenue generator. But the HMRC decision has totally changed the recycling landscape," Heron concludes. "Those companies that dismissed the Max X Tract as impressive but unnecessary for their business are now urgently placing orders to avoid this huge disposal cost increase. The Max X Tract has truly come of age."

To view a video of the Max X Tract Density Separator in action, please visit: http://tinyurl.com/7zsc5gw

Further information from Sean Heron, Dig A Crusher. Tel: 01606 835544







CONVEYOR CONVEYOR

A winning combination at Hillhead

Chain+Conveyor's 'Sprocket of Fortune' game was a real crowd pleaser at Hillhead 2012 in June. Sponsored by Donghua, the simple but effective game attracted immense interest with many people stopping to take photos. Players could win chain shaped air fresheners, branded enamel mugs or enter a raffle to win a large screen 3D TV & Digi Box with Blu-Ray. The winner of the top prize was Thomas Hammond of A P Webb Plant Hire Ltd in Stafford.

Damian Swindells, partner and general manager at Chain+Conveyor, said: "This year we took larger, more visible exhibition space with a wide range of industry specific chain and sprocket samples that really appealed to visitors; this proved to be very successful. We had a lot of positive feedback at the show and a very high number of contacts were made with O.E.M.'s, distributors and end users throughout the industry."

The company was supported at the event by Donghua, one of the world's largest chain manufacturers who produce in excess of 30 million metres of finished chain per year. Chain+Conveyor is a Donghua Approved Product Partner distributing their range of conveyor chain products across the UK. Of particular interest to delegates were Donghua's bucket elevator chain, crank link

chain, API 3 and 4 chains and the Heavy Super Power (HSP) chain which has only been available in the UK since the end of last year.

of Fortune

Chain+Conveyor also used Hillhead to launch their new look website www.chainandconveyor.com. The company has plans to develop the website further including a comprehensive, searchable product database and a Customer Area where registered users can access useful How to Videos and product information.

Helen Stott, partner at Chain+Conveyor, said: "Hillhead 2012 was a very positive event; everyone at the show was upbeat and optimistic about the future. It was a great opportunity for our staff to meet some of our existing customers face to face." She added: "The show enabled us to further demonstrate that Chain+Conveyor is a serious contender in the Quarrying & Mining, Waste & Recycling and Construction industries.

Organisers have announced that the show attracted over 17,000 visitors over the three days, a 10 per cent increase on 2010's figures. Given the interest in their products at this year's show, Chain+Conveyor plan to return to Hillhead in 2014. They hope to continue with this high level of interest when they exhibit for the sixth year running at the Resource & Waste Management (RWM) Exhibition in Birmingham on 11-13 September.

To find out how Chain+Conveyor can directly fulfil your chain requirements visit www.chainandconveyor.com



Brevini **Combines its Fluid Power** and Gearbox **Expertise to** Create the Complete Package for Quarrying



When building a materials handling or processing machine for the quarrying or mining industries the first requirements that come to mind are 'toughness' and 'durability'. The machine's components must have the toughness to withstand the heavy and abrasive materials that are associated with these industries; as well as the durability to survive the shock loading, heavy workloads and harsh weather conditions they will be subjected to - especially in areas where maintenance access may be difficult.

For design engineers, finding companies whose products can be trusted for such

difficult conditions can prove to be time consuming and frustrating. Fortunately Brevini Power Transmission, innovative manufacturers of the PIV Posiplan hybrid gearbox, has shown that with the help of its sister company, Brevini Fluid Power, it is able to supply tough and repair to the control of the province of the complete drive systems for moving and processing applications in the quarrying industry.

Brevini Power Transmission has been combining its technical competences and engineering abilities with Brevini Fluid Power for many years; the two companies providing high-strength and high-efficiency solutions for OE quarrying equipment builders and maintenance providers across Europe and the rest of the world. Recently a solution was designed and installed for material conveying and separating equipment built by Parnaby Cyclones, a UK manufacturer of equipment for the quarrying, coal mining and waste processing industries.

Dave Brown, Sales Manager for Brevini UK Ltd., comments: "Brevini is well known for designing gearboxes that run at high reduction ratios incredibly efficiently; this is ideal for the high-torque low-speed requirements that are often required in the quarrying and mining industries. The reduction ratios allow the drive systems to be powered by small hydraulic motors and small power packs, which keeps running costs to a minimum. By working with our sister company, we can offer complete drive packages in short lead times that integrate seamlessly."

The requirements from Parnaby Cyclones were for Brevini to provide a main drive to deliver a torque of 9,000Nm and output speed of 4.0rpm as well as two chain drives and a spinner drive that were each required to deliver a torque of 3,000Nm and output speeds of 4.0rpm for the separating process. A hydraulic power pack would also be required to feed pressure to individual hydraulic motors at each of the four gearboxes.

Brevini was able to supply four of their unique PIV Posiplan bevel planetary helical gear units each with a Samhydraulik motor and an 11kW 250L hydraulic power pack that included proportional control valves for PLC control. The overall lifetime of the package was calculated to exceed 50,000 hours.

The gearbox for the main drive was a 3 stage Posiplan BPH323 gearbox with an ISO6336 torque rating (T2ISO) of 15,100Nm and a reduction ratio of 58.82:1. The gearboxes for the chain and spinner drives all used 3 stage Posiplan BPH313 gearboxes with torque ratings (T2ISO) of 3,900Nm and reduction ratios of 45.68:1. Combined respectively with Samhydraulik BR200 and BR080 orbit motors, the drives comfortably delivered the needed torque and speed required by the application.

Brevini's unique PIV Posiplan gearbox is the ideal power transmission solution for many of the material handling applications found in quarrying and mining. The hybrid design combines the high efficiency, high reduction ratios and low weight benefits of planetary gear stages with the strength, capacity and durability of bevel helical gears. A modular design incorporating the flexibility of the Brevini planetary gear range ensures versatility and the ability to engineer solutions according to the application and customer demands, while product lead time and product costs remain extremely competitive. extremely competitive.

Brevini Fluid Power offers a range of axial piston and orbit motors from Samhydraulik as well as hydraulic pumps and proportional valves to complete the motor / gearbox package. The use of hydraulic drives for conveying and processing equipment is ideal as they offer the flexibility to deliver variable application demands and are conveniently packaged in compact independent power units for each driven stage of the process.



Weir Minerals brings advanced belt tensioner to **European market**

GEMEX belt tensioning systems - the standard in many process industries worldwide - are now available from Weir Minerals across Europe.

The hydraulically adjustable and mechanically lockable motor platforms allow belts to be checked and changed rapidly by removing the need to re-align the motor each time.

Belt drives are one of the most commonly used transmission systems across almost every industry sector, driving fans, pumps, strainers, crushers, pulpers, compressors and other machinery.

The addition follows Weir Minerals' acquisition of Sweden-based Gema Industri AB, the developer of the GEMEX system at the beginning of 2012.

Monty Riemann, Gemex product manager at Weir Minerals, said: "Belt drive systems underpin a vast number of industrial processes across a wide range of sectors, because it has a number of innate advantages over alternative



transmission methods, being quiet and highly efficient and delivering a large load capacity for its size.

"The GEMEX belt tensioning system removes one of the only down-sides to belt-drive systems the time consuming process of changing worn out belts - by ensuring that alignment is only done once on installation.

"The drive transmission is a critical cog in any process and downtime can be very costly, so the

potential savings this system can deliver are significant.

"Now that it is available via our Europe-wide distribution network, GEMEX users will benefit from increased availability as well as advice and support from our team of engineers."



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As a leading drive technology specialist, we also develop powerful industrial gear units. For this purpose we now have completed construction of a state-of-the-art, efficient plant with a unique modular production concept. And what's the good news for you? Optimum logistics, highest accuracy and speediness in fulfilling your specific orders, just to name a few examples. This is what we call Drive 360° — Seeing the big picture: From problem-solving competence to system availability, low operating costs to energy efficiency up to the overall system that handles all your tasks.



DUO **Manufacturing** design and install new Rail **Unloading System** for London Concrete

DUO Manufacturing has recently completed the installation of a Rail Wagon **Unloading System for London Concrete Ltd** at their Ferme Park site at Hornsey, North

London Concrete was formed in 1997 and currently employs over 140 staff at its head office and at a number of concrete plants around London. It produces ready-mixed concrete which is typically delivered on an 'on demand basis' using a fleet of mixer trucks.

After a period of expansion the company now operate 12 concrete plants in the UK, nine of which are railheads allowing aggregates to be supplied direct by rail. In 2007 nine plants processed almost 1.8 million tonnes of rail fed material.

With a Freight Facilities Grant of £1.3 million awarded to the company in February 2009 for development of a £5 million rail unloading and storage facility at Ferme Park in North London the plant, now commissioned and in full production is expected to handle around 2 million tonnes of sand and gravel over the next ten years.

With past experience in manufacturing and installing successful rail unloading systems DUO Manufacturing were awarded the design, manufacture and commission contract by London Concrete. Working within a tight site footprint DUO successfully designed, manufactured and installed a 'tried and tested' system that incorporated a shuttle conveyor that unloads incoming material from the feed conveyor into appropriate storage bins below.

The new bulk handling system will receive material from between 2'-4 incoming aggregate trains a week from Somerset. Normally consisting of 13-15 hopper wagons, the train is shunted into position with each wagon passing over the discharge hopper depositing sharp sand and gravel, for use in the on-site concrete batching plant with the end product sold to users in the surrounding area.



Rail Wagon Unloading and Conveying System:

With an aggregate rail hopper in position within the discharge building the bottom doors are opened and the material flows into a receiving hopper below which feeds onto the 13.5 metre long drag out conveyor (C1) which is fitted with an inverter drive which regulates the system feed rate. Material is then subsequently fed onto the 5.58 metres long transfer cross conveyor (C2); this inclined conveyor then feeds material onto the tail end of the 114 metres long inclined aggregate bin feed conveyor (C3). Material is then conveyed onto the carriage mounted 13.5 metres long reversible bin feed shuttle conveyor (C4). Mounted above the aggregate storage bins material is subsequently fed into a selected compartment of the storage bunker.

This storage bunker facility has a live capacity of approximately 4,500 tonnes and is divided into three main compartments, with one divided into two. Materials are discharged from these bunkers by eighteen 2.5 metres long fixed speed belt feeders arranged in lines of opposing pairs. With a discharge rate of 400tph each pair of feeders is rated at this duty (200tph per feeder); transferring materials onto the 31 metres long horizontal bin discharge conveyor (C5) which in turn feeds onto the 72 metres long concrete plant feed conveyor (C6).

The whole system was fitted with emergency stop and pull keys positioned around the plant covering the full extent of each conveyor outside of all tail and head drum guarding in accordance with BS7300. Curved corrugated covers and a belt weigher were fitted to the aggregate bin feed conveyor (C3) and a second belt weigher on the concrete plant feed conveyor (C6).

Off Loading Control Philosophy

Situated in the rail aggregate discharge building the operator's cabin for the system houses a Mitsubishi logic controller (PLC) incorporating a desk mounted touch screen control panel (HMI). This PLC is capable of controlling the operation of the plant in auto control and if the control panel is selected to run in this mode the conveyors/plant will start and stop in sequence via operation of the touch screen. Should any motors fail whilst the plant is running in auto mode that specific item of plant will stop along with all upstream motors, with the rest of the plant then running clear of material and then into auto stop mode. Once any fault is rectified the plant can be restarted and all stopped plant will restart in sequence to re-join the remaining running plant.

After each rail hopper has discharged material the individual weight is recorded by the operator touching a button on the HMI screen after





each wagon. Trainload weight can also be recorded with prompts from the HMI with the system retaining at least 40 days of all records. The operator is also able to position the bulk shuttle conveyor over the desired discharge point via the touch screen, enabling him to inch within the bin selected to achieve maximum bin levels. The HMI allows full operator control of the plant and will display data including:

- Status of every item of plant
- Storage bunker level
- Shuttle position
- Conveyor running currents
- Material current weight/totals
- Alarms
- Historic data

Concrete Plant Feed Control Philosophy

Located in the concrete plant operator cabin the system is again controlled by a Mitsubishi Mitsubishi Togic controller (PLC) incorporating a desk mounted touch screen



control panel (HMI). Again this PLC will control the operation of the plant in auto control and if the control panel is selected to run in auto control the conveyors/plant will start and stop in sequence via operation of the touch

The control of the mixing plant feeders allows for each opposing pair of feeders to operate on an automatic cycle of starts and will facilitate automatic switching over to the next pair in the event of

non-material flow. Again should any motors fail whilst the plant is running in auto mode then the system behaves exactly the same and provides all the necessary data as in the offloading control philosophy.

Environmentally friendly

The new plant at the Ferme Park site will mean that in the next 10 years:

- Almost 2 million tonnes of sand and stone will be carried by rail.
- Over 18 million lorry kms will be removed from the roads, reducing congestion, noise and pollution.
- Approximately 12,000 tonnes of the greenhouse gas, carbon dioxide (CO2) will not be released into the atmosphere.

A complete supply

As well as the rail unloading system DUO Manufacturing (LJH) also supplied the purpose built rail unloading station complete with rail bridge and lined receiving hopper. DUO also supplied all the electrical control equipment and commissioning of the electrical system including a CCTV system covering the offloading plant and the concrete feed systems.

Commissioned last year the plant has been a great success, providing London Concrete with a safe and efficient system. Derek Casey - Managing "DUO Manufacturing were tasked with providing us Director, commented, with an efficient, workable system and they have successfully managed to meet our full expectations in every aspect. We were very impressed at their 'Can Do Attitude' and it has been a pleasurable experience working with them. As well as completing the project on time and to budget, we were very impressed with their Health and Safety procedures and culture."

All work was carried out under CDM regulations with the civil contractor acting as the principal contractor throughout.





Rexroth, the drives and controls division of the Bosch group is leading the way in the development of innovative products and technology. By doing this, it remains at the forefront of modern technology to provide customers with advanced and reliable solutions for their application

Large-scale facilities are constantly looking for ways to improve energy efficiency. A good starting place is to consider the use of fixed speed fans and pumps where even a small reduction in speed can reduce energy consumption and equal cost savings whilst reducing noise levels. The Rexroth Sytronix speed variable drive is designed for just such fan and pump drive applications.

Sytronix variable speed drives

Investing now into the future as a result of rising energy costs and increasingly cost efficient speed controlled drives offered on to the market, variable speed solutions are on the advance. Using intelligent servo drives to regulate speed and thus the power consumption of the electric motor energy savings of between 30% & 80% can be achieved. Noise reductions of up to 20 dB(A) are possible and in many cases hydraulic cooling requirements are reduced possibly eliminated leading to a more compact design and making further cost savings possible.

Hagglunds (high torque) variable speed drives

For high torque drives Rexroth drive systems

provides a hard to beat solution. The Hagglunds motors combined with the low power drive unit (LPDU) has been specifically developed to offer a highly

competitive variable speed drive for high torque but low power applications such as screw and belt feeders, mixers, conveyors and other low speed rotating plant.

The Hagglunds motor provides full torque throughout the speed range and has high efficiency. The LPDU low power drive unit has been developed to provide a high quality low cost system to complement the drive motors in power levels up to 50KW. This suits many of the applications in solids handling plants and therefore provides a new opportunity to get the Hagglunds drive solution and benefit from all the advantages without a high investment cost.

Direct hydraulic drives using Hagglunds motors and drive units from Bosch Rexroth make it simple to work across a range of applications in bulk solids handling.

The required torque determines the specific drive motor from the extensive range available in addition to a standard drive (power) unit for the speed range required and the installed power needed. Apart from three connecting pipes, that is all that is required for a successful installation. The control unit can also be included.

With direct hydraulic drives, gearboxes are not required and the motor mounts directly on the shaft to avoid alignment and foundation issues. The electric motor runs continuously with drive control handled by the hydraulics. This means that there are no complex electronics which might be problematic in poor or tough environments. Hagglunds drive systems are actually operating in some of the worst operating conditions without problems, the drive motor is maintenance free and the drive unit requires only occasional filter change and oil inspection.





A range of product and technology upgrades have been incorporated in the latest version of new low energy milling equipment developed for the fine grinding of minerals, hard materials and bulk raw materials.

As part of a programme of continuous product improvement, International Innovative Technologies Ltd (IIT) has further developed its patented m series of high efficiency vertical milling equipment with the introduction of a new second generation system for high yield powder milling applications.

The IIT technology is suitable for the milling of a wide range of natural raw materials and industrial products, such as aluminium oxide, silicon carbide, zirconia, calcium carbonate and limestone products, coal, fly ash and different types of slag, as well as glass, and GRP.

The upgraded system now developed by IIT utilises heavy duty castings in a range of modular grinding options to meet the needs of different materials, particle size requirements and throughput volumes.

These include a special twin mill system configuration, utilising two grinding modules operating in parallel from a common feed, for complete flexibility of material throughput and increased production outputs.

Grinding modules can also be arranged vertically in series for multi-stage milling required for the production of certain grades of material.

The second generation m series mills also incorporate pressurised oil cooling and lubrication for extended bearing life, enhanced sealing integrity and the cooling of critical equipment assemblies. In addition, systems can also be provided with forced air circulation through the mill for product cooling and moisture removal where necessary.

In addition a number of special features have been introduced to both reduce wear in the mill caused by hard materials and eliminate the danger of contamination of product.

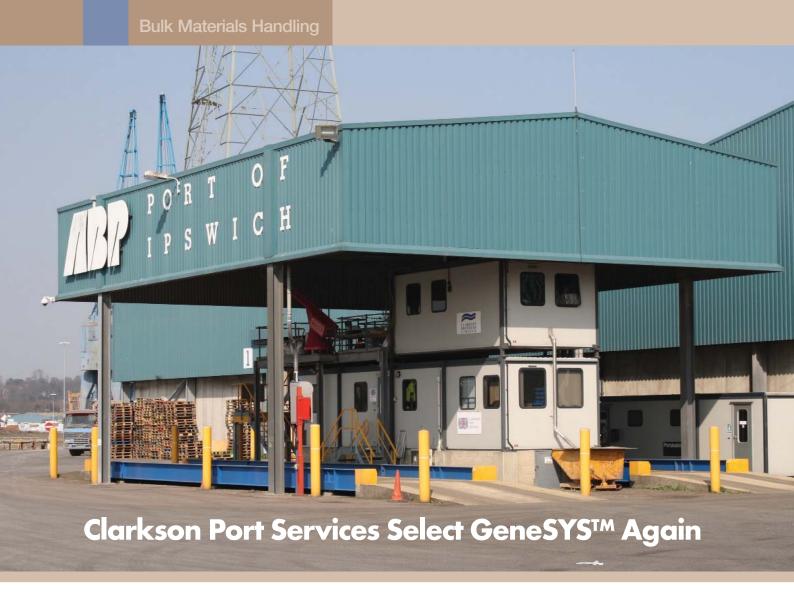
To overcome these problems, the module body is manufactured from heavy duty austempered ductile cast iron and internal wear resistant polyurethane coatings can be incorporated in the inlet and outlet feeds, and a ceramic tile lining used in the grinding module itself.

Compact and powerful, the centrifugal grinding mechanism of the mseries is extremely efficient with the vertical material flow path and special roller assembly ensuring that the force produced is translated into maximum particle grinding power. To meet the specific requirements of particularly demanding applications and hard minerals, this feature has been further enhanced in the upgraded system with a range of material options for the grinding rollers and rings, including abrasion resistant tool steels, high chrome iron and ceramic tooling.

Across the full range of m series mills, new engineering design has enhanced the original modular concept of the technology, with simple access, break down and reassembly features enabling fast in-line maintenance and replacement of the grinding modules when necessary.

IIT mills and classifiers incorporate electronic control and process monitoring systems developed in collaboration with Siemens Industry Sector and Siemens motors, drives and instrumentation systems form an integral part of the milling and materials processing systems. Further details at www.iituk.com





When Clarkson Port Services (CPS) opened its new £1.5 million grain terminal in 1997 at the Port of Ipswich it was among one of the first installations of its type to achieve extensive and cost effective driver operation. The terminal was designed to comply with the latest guidelines for the handling of agricultural bulk products drawn up by the Ministry of Agriculture, Fisheries and Food (MAFF) and comprised a 90,000sq.ft, covered flat store with the capacity to store some 24,000t of cereals and animal feeds.

THE NEED

- Replace the existing driver operated consoles which had managed up to 150 lorries a day since 1998
- Provide simultaneous handling of all four types of weighing transaction currently carried out at the terminal, embracing ship loading and unloading and flat store collections and deliverys.
- Deliver a high degree of driver operation providing a single weighbridge operator complete control of all site weighbridges from one central control point.

 Feature in-built flexibility to enable the system to be readily adapted and expanded to meet the dynamic nature of the business.

THE SOLUTION

The existing driver operated consoles were replaced by the latest generation of Precia-Molen driver console, the BI300, on all four weighbridges. The BI300 incorporates backlit LCD full screen display, industrial keypad for easy driver dialogue and thermal ticket printer for increased reliability and print quality.

Each weighbridge was previously integrated into the Precia-Molen GeneSYSTM 1 weighbridge and administration software. This legacy system did not offer the functionality demanded by a busy modern operation and prevented the terminal from moving forward with plans for growth and productivity gains. The software was therefore upgraded to Precia-Molen GeneSYSTM 3 Enterprise, a central administration software, which includes new modules allowing features such as stock control and traceability from ship to shore, and store, to customer. The system also allows for web access to customer information as well as a comprehensive site management system for the daily scheduling and reporting of site operations. GeneSYSTM 3 also incorporates a large number of reports as well as a report builder which can be made visible to the customer via the web or email direct to the client.

A critical element of the upgrade was that the hardware modernisation which had to be completed over a weekend to ensure minimum operational downtime.

THE SYSTEM IN OPERATION The weighbridges are designated A, B,

C and D. Weighbridges B and C are positioned either side of the offices where the weighbridge operator is based and act as the main reception point for vehicles collecting and delivering. Weighbridges A and D are both driver operated and are sited remotely from the offices. A is used primarily for ship unloading operations whilst D functions as the 'out' weighbridge for ship loading. The GeneSYSTM system allows simultaneous operation of all four weighbridges.

The entire vehicle processing system ensures vehicle drivers remain in their cabs throughout most of the cargo loading and unloading routine. When, for example, a delivery of animal feed or milling wheat is made the vehicle accesses weighbridge B or C. Documentation is placed into a pneumatic document dispatch system which transfers it to the operator. Relevant details are logged into the computer and following successful completion of quality procedures, GeneSYS™ authorises the delivery. The Bi300 driver console then prints out a two part ticket, including a tear off ID number and loading or unloading details which are to be passed to Clarkson operatives responsible for lorry management.

The vehicle is then directed to weighbridge A or D where the BI300 unit prompts entry of the ID number. The vehicle is then weighed and a final weight ticket printed together with a tear off exit pass to enable the driver to exit the docks, thus completing his/her weighing.

This final transaction is essentially driver operated but, should any problems arise, the driver can still use the integral intercom to communicate with the weighbridge operator, who is also able to observe all weighbridge activity remotely through a CCTV system, in addition to that offered by the GSM (GeneSYS™ Site Management software).

THE VERDICT

The system has delivered on all its key objectives. CPS Director, Julian Scott, commented, "The Precia-Molen system has not only proven to be extremely reliable, but is even more flexible than we originally anticipated."











Bardon Composite Pavements have recently completed a contract which involved mixing and laying a HBM (Hydraulically Bound Mixtures) road subbase using the newly launched weighing version of the RMX400C, mobile continuous mixing plant, from Rapid International Ltd.

By using the mobile plant on-site, Bardon (a division of Aggregate Industries) were able to keep mobilisation costs to a minimum during this short duration contract. John Donegan, Technical Director of Bardon Composite Pavements says, "The high outputs, achievable through the mixing plant, enabled the works to be completed in 7 days, which was ahead of the contractor's programme.

This contract on the Longford Bypass in Ireland involved mixing and laying HBM road sub-base which was a CBGM C16/20 with local aggregates. The mobile continuous mixing plant from Rapid International can produce up to 400 tonnes per hour and records the quantities by weight of each material added. The plant's record keeping is automated, precise and detailed and provides Bardon with accurate information.

The new RMC400CW model now incorporates a 1200mm belt conveyor between the aggregate hopper and the continuous mixer. The weighing belt is supported on load cells and this measures the weight allowing the feed rate of the aggregate to be determined. The new plant also incorporates a cement weigh system, using a rotary valve feeding a weighed screw with twin outlets for discharging into the mixer. The water is monitored using a flow meter.

The pugmill mixer, incorporated into the plant is fitted with twin mixing shafts with mixing paddles configured to thoroughly mix the material whilst propelling the mix along the mixing chamber toward the outlet. A layer of base material is allowed to build up on the wall and floor of the chamber, protecting the rubber lined walls and base from wear.

The cleaning system which is unique to the Rapid International continuous mixing plant is one of its key selling points for customers. As well as access lids on top of the mixing chamber, the sides of the mixer are hinged down hydraulically giving complete access to the paddles and interior for maintenance. Also the bottom of the mixer is formed by a conveyor belt, which is operated when clean out takes place, taking the waste material away on the conveyor. This greatly simplifying (and speeds up) the cleaning operation.

The Longford Bypass is approximately 3km in length and is located on the N5 to the north and west of Longford in Ireland. The scheme is being carried out for the Ireland's National Roads Authority by Wills Bros Ltd, Civil Engineering Contractors.



Quarrying

Vulcan Burners turn up the heat at Hillhead 2012

Asphalt Burner Services would like to thank everyone who visited their stand at this year's show at Hillhead. ABS exhibited at the show to officially launch the new innovative Vulcan Burner range which has proven to be an outstanding success.

In the last year, there has been huge interest in the new burner range, and with the results that have been achieved, there has been a buzz within the industry.

Industry minded people visited the stand from both national and international markets, where they were able to see the burners on display and discuss their own requirements with both the engineering and sales team.

Asphalt Burner Services are delighted to announce that they have secured several orders during and after their presence at the quarrying show in Buxton, whilst they are also looking forward to seeing further results from these sales!



Martin Gandy (Engineer Dept.) explains "We are very pleased with the high turnout of visitors to the stand during the 3 days of the show; it has been very busy but extremely enjoyable welcoming existing and new customers to the stand. The Vulcan burner is leading the future of asphalt production plant design. New concepts that focus on energy efficiency and low emissions but keeping the design simple for the end user with key aspects such as low maintenance and easy access. The Vulcan range is the new generation of asphalt burners."

If you are interested in the new product range or would like to make an enquiry, please contact Jodie Lewis on jodie.lewis@burnerservices.net or visit our website on www.burnerservices.net.





Kendall Plant Expands **Processing Fleet** with Finlay Plant SW in Cornwall's **White Mountains**'

High performance plant supplied by Finlay Plant SW to Kendall Plant Ltd is enabling large volumes of high grade, recycled material to be processed, in the heartlands of Cornwall's china clay quarrying industry.

Machinery including the Terex Finlay J-1175 Jaw Crusher, C-1540 RS Cone Crusher and Supertrak 694+ are enabling Kendall Plant to process stent - the material left over from the extraction of china clay.

Keith Kendall, who has a background in agricultural contracting, is the owner and director of Kendall Plant.

He made his first venture into crushing 14 months ago, and has been contracted by Brookland Sand and Aggregates at Gunheath Quarry, near to St Austell, to process the stent - millions of tonnes of which are on the site, along with regular deliveries from china clay quarries in the

To cut through the volume, plant was needed with high outputs, and Keith has worked closely with Gareth Johnson, managing director of Finlay Plant SW Ltd, to introduce high performance machinery that delivers maximum value from the processed material - producing a clean and valuable end product.

The process starts with a Terex Finlay J-1175 Jaw Crusher, which has the capacity to take in half-tonne rocks, through to dust.

With an independent pre-screen fitted, fines in the stent can be removed at an early stage in the process - eliminating the need for a reclaimer or any other type of screener to scalp off -45mm.

This function is particularly valuable as the stent material comprises of up to 50 per cent fines in with the granite rock.

Fines fall through the mesh and -45mm is scalped off to make Type 1 803 material, while +45mm goes through the jaw to produce crusher run, of which 75mm is the largest size.

This then goes into the Terex Finlay C-1540 RS, Cone Crusher, which provides the versatility of a crushing and screening plant in one

Featuring an onboard recirculating system and detachable sizing screen, the machine at Gunheath processes 45mm material through the mesh, with +45mm re-circulating and then going into the four-way Terex Finlay 694+ tracked mobile screen at -45mm.

The 694+ offers a triple deck screen configuration, providing three fullsized 6.1m x 1.525m screens, and a hydraulically folded fourth conveyor.

It produces an end single size product of 40mm clean chippings, 20mm clean chippings and 10mm clean chippings, used as decorative material, as well as for ready-mixed concrete and drainage and pipefill material. The 6mm to dust end product is delivered to a nearby manufacturer for concrete blocks.



Quarrying

The machinery currently outputs 2,000 tonnes a day and there is no waste from the processing activity - all the end product material is used, making it a highly-effective recycling process.

Keith Kendall said: "We've worked with Finlay Plant SW because they offer exceptional service and great back-up for us on site.

"We are in a remote area, but we can always ensure a prompt service in terms of fitting and commissioning, parts and spares and advice on the specification of machinery.



All the machinery is working really well, and the pre-screen on the J-1175 delivers major economic benefits as it means we don't need a reclaimer to scalp off fines.









40 years of reliability for **Singleton Birch Limited** with **Mogensen Sizer** machines

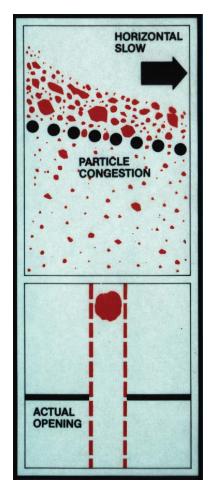
Singleton Birch Limited at Melton Ross Quarry in North Lincolnshire has been quarrying and processing Lincolnshire Wolds chalk for almost 200 years, and is the UK's largest independent manufacturer of lime products.

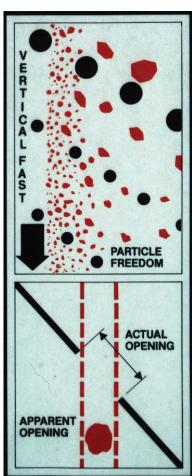
The company has a long-standing relationship with Mogensen UK having installed its first Mogensen machine, a 5-deck Sizer, about 40 years ago. At that time Singleton Birch wished to increase and the standard of the standar production in a long-established part of the plant, where space was restricted. It was possible to increase crusher and conveyor capacity without great difficulty but screening caused a problem in that there was insufficient space available to accept the much larger conventional scree'n needed.

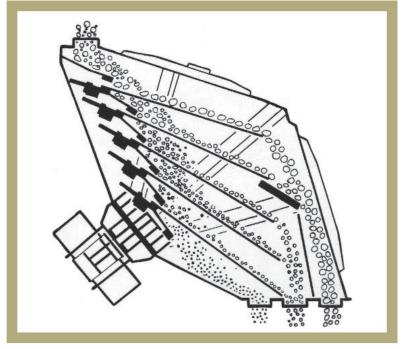
The management had earlier read press reports about the Sizer and Dr Fredrik Mogensen's article, published in 1965, explaining the theory and practice of his new screening technique. They were intrigued by the claims that the Sizer could screen about five times the amount of material as could be handled by a conventional screen occupying the same floor space, could at the same time provide a satisfactory screening result in appropriately chosen circumstances and appropriately chosen circumstances and be very resistant to the problem of screen-deck "pegging". They decided to install a machine, and found that the Sizer in that installation did live up to its promises and also reduced maintenance costs in that the mesh panels were smaller and, therefore, easier and quicker to change than the panels in normal screens.

The theory behind the Mogensen Sizer is based on the realisation that the effective aperture of a sloping screen mesh is less than its actual aperture; as seen by a falling particle it is the vertical projection of the aperture. Dr Mogensen started to study this effect in 1947 and found that some scatter occurred, i.e. that the separation achieved was not very sharp. He found that several decks mounted one above the other were necessary to achieve a better result from what he had started to call probability screening, each deck refining the result obtained from the one above.

Following this line of thought during the 1950s he developed a vibratory machine, which comprised seven parallel screen decks arranged vertically one above the other. This improved considerably on the effect obtained from a single deck but these effect obtained from a single deck: further experimentation and mathematical analysis, however, showed that five decks

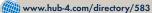






arranged at increasingly steep angles from the top to the bottom of the machine delivered a much sharper separation. This resulted in the "fan" configuration used today. (See image 1, shows the Sizer making two separations, i.e. three products).

It was found, moreover, that the principle would work only if individual particles were free to behave independently, i.e. free from the pressures and interference found, when a bed of material is allowed to build up on a screen deck. The combination of this freedom of movement, the greater particle speed (aided by gravity) and the greater open mesh area available screens in precific capacity in relation to except and affected. explain the increase in specific capacity in relation to occupied area offered by the Sizer. (See figures 1 & 2).



Quarrying



Kirkby Lonsdale based Fairhurst Stone, one of the UK's leading suppliers of York Stone paving, has taken delivery of a new Case Construction Equipment CX700B mass excavation unit.

The 70 tonne 360 degree back-actor is working in Fairhurst's sandstone quarry at Ravensworth, North Yorkshire where it digs out blocks of stone weighing up to 30 tonnes. The blocks are loaded into the company's own fleet of HGV's and taken to be cut into high quality York stone slabs for paving and landscaping.

The machine was delivered in late May by Case dealer C J Leonard & Sons based in Guisborough, Cleveland and replaces a 50 tonne Caterpillar 345 which previously worked in the quarry.

The Case for the CX700B ME

"Basically the Cat was too light for the duties here" explains Edward Fairhurst, director of Fairhurst Stone. In search of a more suitable machine, Fairhurst approached C J Leonard, from whom the company had previously purchased Case equipment. "We already have a Case CX460 and a CX130 working at another quarry" comments Mr Fairhurst. "They are both good machines, so we wanted to see what Case could offer in place of the old Cat."

The CX700B ME weighs 20 tonnes more than the Cat 345 it replaces, but it performs like an even bigger machine. With tear-out forces of up to 224kN, extremely fast loading and a modern engine and hydraulic management, the CX 700B ME is one of the most productive machines in its class.

Fitted with a Miller Rock Bucket, the new digger will pick up 30 tonne blocks with no difficulty, says Mr Fairhurst. "The productivity is brilliant" he says, "It will move twice as much as the Cat".

Fuel efficiency is a major concern of any equipment owner, and so far the big Case excavator promises to deliver low consumption for its size. "So far it seems to be working out similar to the Cat - but of course it's a much bigger machine and it's doing twice the work" says Mr Fairhurst.

Designed with the Operator in mind

Equipped with the latest Case B Series cab, the CX700B ME offers unrivalled space and comfort with minimal noise and vibration to ensure fatigue-free operation on even the longest shifts.

Operators can select from a choice of modes to suit the application: Super power mode gives speed priority when required while Heavy Working mode optimises productivity and fuel efficiency. The Automatic High Dump mode helps reduce cycle times, thereby also boosting productivity.

Safety is assured with a cab structure which is three times more rigid than previous designs. The short joysticks provide excellent control with minimal effort.

As well as low fuel consumption, the new Case CX700B ME has long service intervals (for example, 5,000 hours between hydraulic fluid changes and 1,000 hour bucket lubrication intervals) thus reducing maintenance costs and machine downtime.





















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