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February 2012

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Precia-Molen GeneSYS™ Enterprise System provides total efficiency for Weald Granary.

Following increased demand for wheat tonnage and with a growing membership the Mereworth, Kent based co-operative Weald Granary has installed a Precia-Molen GeneSYS™ Enterprise Software system as part of an on-going development programme.

Owned by a membership of local farmers Weald Granary is a non-profit making organisation functioning as a grain drying, cleaning, handling and marketing facility. Serving Kent, Sussex, Surrey and Essex the facility is one of a number of co-operative stores in the UK and Scotland, being part of the Openfield Store Network (OSN).

A recent further investment of £1.75m in a phase 8 development has provided a 26% increase in storage capacity to 80,000 tonnes. With the impressive facilities currently handling approximately 100,000 tonnes per annum from 192 farmers alongside an annual projected growth of 4-5,000 tonnes from a projected 10-12 new members the Precia-Molen GeneSYS™ Enterprise system has changed the fundamental time resource completely, throughout the stores, administration, marketing and stock control of the products.

Key criteria:

Weald Granary chose the Precia-Molen GeneSYS™ Enterprise Software because it met four criteria:

- To bring the entire vehicle unloading operation, including contract validation, sampling, laboratory testing, weighing and discharge on two Precia-Molen weighbridges under the control of a single PC network.
- To be fast enough to cope with the increased traffic in 'harvest time' and ensure that they have all been tested and accepted for delivery.
- Flexible enough to adapt to any future needs of Weald Granary, allowing new commodities to be added to the database if necessary.

- To be fully supported with technical back-up and updates.

A smooth transition.

Currently employing seven HGV staff and five store personnel the Weald Granary team are supplemented by casual staff in harvest time (8-10 weeks); when at its peak 3500 tonnes per day is delivered in from farmer members to the facility.

With each member requiring quality confirmation and weight data from the granary, the GeneSYS™ Enterprise Software was installed with the addition of a second weighbridge (VS400). This has smoothly accommodated the transition to phase 8 providing total farm management through the integration of the weighing system with the stock management system, allowing the farmers easy access to their data through the web portal.

An assurance scheme:

One of the major features of the GeneSYS™ Enterprise system is that it maintains the traceability of assured combinable crops after they have left the farm, which complies fully with TASCC guidelines. TASCC was developed because farmers and end users wanted to be sure that crops of grain, oil seeds and pulses were treated responsibly once they left the farm. That includes wheat processed by flour millers and malting barley for the brewers and distillers in the drinks industry. It also provides independent verification that the trade is meeting food safety laws. The scheme is audited and certified by an independent certification body, in accordance with the internationally recognised standard EN45011. This means that the certification body is itself independently assessed every year to ensure that the standard is implemented and administered consistently and fairly. The Scheme is made up of a Scheme Manual and four codes of practice (Storage, Haulage, Merchants and Testing Facilities). The Storage Scheme is operated to a joint scheme with the Grain and Feed Trade Association (GAFTA) covering combinable crops and feed materials.

An achievement:

Since the installation the GeneSYS™ Enterprise software has provided an expandable system which has provided many benefits including:

- Reduction in staffing levels.
- Increased overall efficiency.
- Decreased phone communication, as most communications are now through the web portal.
- Decreased paperwork and decreased management of paperwork.
- System can be accessed remotely by OSN.
- Management of incoming loads, variety, etc.

A simple and effective system:

Gaining access to the site is through a one-way system which directs the driver to the incoming weighbridge where the driver gains access by receiving a card from the Precia-Molen automatic card dispenser. The driver then enters the relevant information including reference number, vehicle registration, and contractor code and commodity type. The GeneSYS™Enterprise System then retrieves the contract details from the database and checks that the transaction is valid. Should there be a query on a load the system incorporates a search facility (truck/member/quality) which allows the operator to quickly interrogate the database ensuring minimal time delays. Having already un-sheeted the load a sample is then drawn off by a remotely operated vacuum spear sampler adjacent to the weighbridge and sent to the on-site laboratory for sampling.

By the time the sample arrives at the laboratory, the GeneSYS™ LIMS module laboratory Information Management System will already have printed off a sample document with a check list of the quality tests required for this load. The results of each test are keyed in by laboratory staff and automatically checked against the pass/fail criteria. If the sample passes all the quality tests then the driver is given permission to unload. If the sample fails for any reason then the vehicle is put on 'waiting' status and the test details are flagged up on the

screen. This allows staff to contact the supplier to inform them the load has been rejected, or to negotiate acceptance below contract specification. Having received a 'pass' the driver then moves forward to transfer his load into the appropriate silo. When he has completed his delivery the driver then draws away from this area and proceeds to the site exit via the outgoing weighbridge.

Any incoming load whether dry or wet can be dealt with effectively as the load can be calculated as a dry net weight through weight loss calculations within the GeneSYS™ Enterprise System (through algorithms). The system through its database will automatically calculate the moisture content in any grain type and through this calculation subsequently provide data on the parameters of protein, (example - Hagburg-suitability for dough in bread making), specific weight and screenings (cleanliness).

Outgoing deliveries of grain are handled by the partnership with DHL with trucks entering the one- way system passing onto the incoming weighbridge and then to the appropriate silo for loading. Exiting the site they move onto the outgoing weighbridge for sampling and weighing of the load. Here again a sample is then drawn off by a remotely operated vacuum spear sampler adjacent to the weighbridge and sent to the on-site laboratory for sampling. The results obtained from the outgoing load are then retained by the GeneSYS™ Enterprise System which can be remotely accessed by OSN to check the quality parameters of each individual load if required.

Further added benefits:

Overall the Precia-Molen GeneSYS™ Enterprise software has provided further added benefits to the marketing of the products to the market:

- Speed of uplift, drying, cooling and total management of the condition of the crop.
- Material availability to the market through OSN to maximise the profit, which would not be available off a farm.
- Vendor assured quality on outgoing loads which enables end users to reduce their own lab staffing costs as they will be assured of the quality being delivered.
- Reduction of rejection levels of delivered grain to a minimum, resulting in major logistical savings (Lorries not waiting for results, etc.)
- Vendor assured grain = big future market!

For the project Precia-Molen installed one surface mounted weighbridge-type VS400, capacity 50,000kg, one RFID reader, ticket printer and a dialogue display.

John Smith-Managing Director - Weald Granary, commented, "The installation of the GeneSYS™ Enterprise System is proving an important part of our ongoing site expansion & development program here at Weald Granary. This IT platform has provided customers & farmer members with all the information they require at the time they want it, it has reduced data entry & double handling of data freeing up staff to focus on other tasks. It has also reduced data inputting errors, improved efficiency and visibility of data on site. The site operation is a lot more organised and less stressful now with staff having easy access to all the information they require to carry out their job roles.

A testament to the benefits of the GeneSYS™ Enterprise System is that we increased storage capacity at the Mereworth site by 26% for harvest 2010 with no additional staffing requirement."

On the level: A guide to level measurement

ABB has added an extensive range of level measurement instrumentation to its product portfolio, following the acquisition of U.S. company K-TEK. Les Slocombe, ABB's Marketing Services Manager, explains about the recent developments in technology and what the future holds for level measurement applications.

What are the key recent developments in level measurement?

Being able to transmit level data via 4-20 mA, HART, Foundation Fieldbus and the other commonly used communication methods is a key advance in level measurement. An example is K-TEK's magnetostrictive level transmitters, which come ready to support communication protocols, allowing transport of level measurement information.

How has this changed the way level measurements are performed?

In the past, level measurement meant an operator going round to check the level at the vessels. Today's level transmitters can relay this information to the control system so it appears on screen in an easily readable format.

What benefits have these developments brought?

As well as being far more convenient, it can also be much safer, keeping personnel away from potentially hazardous materials.

As well as the convenience of easy communication, many of today's level measurement systems are also easier to install, configure and maintain. Previous generations of level technology often required a fair amount of technical knowledge to install and configure properly, today's software rich level measurement systems allow just about anybody to commission the device.

There has also been a significant increase in the accuracy of interface measurement. The latest magnetostrictive technology is capable of accuracies 0.010 per cent to 0.25 per cent. This compares extremely well with older methods like hydrostatic tank gauging, which could only offer accuracies ranging from 1 per cent to 25 per cent.

How should level measurement solutions be chosen?

One of the most important considerations, particularly when specifying magnetic level gauge technology, in is in the manufacture of the float. A magnetic level gauge relies on a float to give a level measurement, which must be designed specifically to suit the process medium being measured. A magnetic level gauge can give 30 to 40 years of reliable service, but a poor choice of float construction could cause performance and reliability to suffer.

Avoid the temptation to go for level measurement systems that can do everything. Concentrate on the core goals of the application and keep in mind that the product itself is less important than the solution you're trying to achieve.

To guide your selection, keep some essential question in mind:

- What kind of accuracy does the application require?
- What is the temperature, pressure, media type?
- What is the temperature range of the application?
- What is the budget?

Overall, keep three key factors in mind when evaluating your level measurement systems:

- Safety
- Efficiency & Reliability
- Environmental

What should I look for in a level measurement vendor?

Look for a supplier with a broad range of level measurement solutions, as they will be able to identify the appropriate solution for your application. They might also offer online tools to make commissioning, installing and troubleshooting the level measurement system easier and more convenient.

Also, keep in mind that a low cost product may not offer the performance and safety levels provided by current generation level measurement solutions.

Talk to the manufacturer and give them as much application information as possible. For example, if the application involves a dirty fluid with the possibility of build-up, then a float-based approach will require special considerations. Again, if the application is susceptible to a high vibration levels, a reed switch technology would probably not be ideal.

What does the future hold for level measurement?

There will be more support for protocols in level measurement systems, including 4-20 mA, HART and Foundation Fieldbus, together with more emphasis on functional safety with products certified to standards such as SIL2.

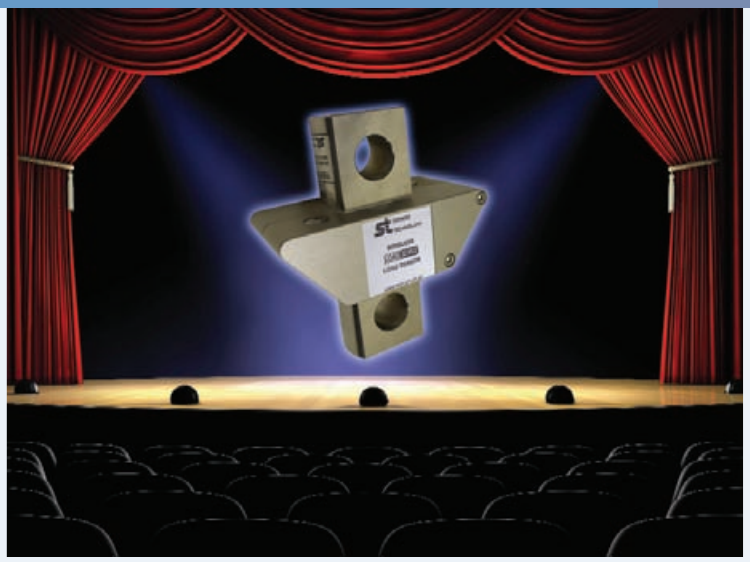
The future is sure to see level instruments incorporating more digital features, as well as using wireless in creative ways to provide application visibility and flexibility for level measurements.

ABB now offers an extensive range of level measurement products across a variety of applications in pulp and paper processing; mining and construction; food and beverage manufacturing; oil and gas production; and chemical processing.

For more detailed information on ABB's level measurement offering please phone 0870 600 6122 re: 'level measurement' email: moreinstrumentation@gb.abb.com web: www.abb.com/measurement

www.hub-4.com/directory/14086

Drama as helicopter sensor files into theatre role



With theatres striving to create breath-taking spectacles and leave the audience gasping for more, there is often world-class engineering behind the scenes. A British company is developing technology to ensure safety when excited performers and heavy machinery share the same space.

If live theatre is to compete with film and television, it has to produce visual spectacles to complement the performance of the actors, singers and musicians on stage. Hollywood's increasing reliance on CGI (computer generated imagery) has upped the ante for stage set designers, who have to work before a live audience, in restricted space and with a constant eye on the safety of the many people working frantically round the set.

Many stage props and almost all of the backdrops are lowered onto the stage from the fly tower just behind it. Usually this is done quickly between scenes, but sometimes it is during - and as part of - the actual performance. Either way, safety and reliability are essential.

"Until recently, the sets were manually controlled with a technical stage manager watching everything from the wings and giving instructions by radio to the winch operators above." explains Tony Ingham of Sensor Technology who is helping to introduce safety systems and automation to the theatre industry.

"Speed is of the essence during scene changes, but you have to be confident the winches won't fail - which could easily damage the set or injure a person."

Sensor Technology is achieving this using real-time load signals from each winch. The data is monitored by a computer in the control room so that instant action can be taken if any loads move out of tolerance.

"We developed the load cells, which we have called LoadSense, a couple of years ago, originally for monitoring cargo nets carried under helicopters." says Tony. *"We were asked to develop one specific capability within the cell and were delighted to do so because we could see that the technology would transfer to many other fields - although I didn't realise it would get to be a backstage pass to a world of greasepaint and legwarmers!"*

That critical characteristic was robust, industrial-grade wireless communications, something in which Sensor Technology already has a 15year track record from its TorqSense transducer range. In basic terms, each LoadSense has an on-board radio frequency transmitter which sends signals to the control room computer. The transmitter has to be physically robust to cope with the environment it finds itself in and capable of maintaining its signal integrity through the most corrupting of harmonic conditions.

"By working in real time, we can act instantly to any problems. For instance, if a load starts running too fast we would slow it down immediately. If a prop is heavier than expected this could suggest someone was standing on it so shouldn't be whizzed 50 feet into the air at high speed. In fact, in this case, the computer 'jiggles' the load for a second or two as a warning to encourage the person to step away: If the load then returns to normal we are happy to let it rise; if it doesn't, the floor manager is alerted by an alarm to check the situation."

LoadSense is proving so sensitive that it can provide a feedback signal to close the control loop on a vector drive controlling the winch. Normally theatre engineers use sensor less vector drives, which offer good dynamic performance without the complications of wiring in a feedback sensor.

Sensor Technology is closing the loop which improves system integrity and enhances safety by a significant margin.

"Not that many years ago, stage scenery was fairly static, being moved only during the interval when the curtains were closed," Tony recalls. "Then the big theatres in the West End and on Broadway started to emulate some of the things you see in the movies. Looking back, those early efforts were pretty crude, but you would say the same about long-running film franchises such as James Bond or Indiana Jones."

"Nowadays, film directors can produce their spectacular images using CGI, and this has upped the ante no end for their cousins in live theatre. The computer power they turn to is not virtual reality but industrial automation."

In fact, theatre engineers probably work in more demanding conditions than manufacturing engineers. Everything has to be right on the night, harmonic corruption is at stratospheric levels, there can be major changes at a moment's notice, people run through the 'machinery' without a thought for personal safety.

"But with automation some order is brought to this creative chaos. In fact, the health and safety inspectors now insist on it, with lots of fail safes and feedbacks. I honestly don't think theatre engineers would be able to achieve half of what they do without wireless communications. There would be just too many wires running all over the place and inevitably some would get broken at the most inopportune of moments."

For further product information www.sensors.co.uk/hub

www.hub-4.com/directory/8299

ED3 SkidWeigh Plus System

The key element to a true lift truck fleet management solution is to understand what you want to measure to produce positive bottom line results with little upfront investment and relatively short payback.

Monitoring lift truck utilization may not provide you with meaningful data as to how many loads the operator moved that day, pallets stored, pallets received, the ratio of available hours and hours used (Ignition ON time, lift time, etc.) and in many cases is not relevant.

The most effective means to measure and manage productivity is achieved by developing engineered standards and then measuring performance as a percentage against the standard.

There are, however, certain performance measurements surrounding operator productivity that can't be easily monitored or accurately measured through human resources.

In order to achieve top results; it is necessary to manage lift truck fleet operations at a lower level, and in the final analysis to report productivity results in terms of vehicle utilization measured in real time on an individual basis.

The ED3 SkidWeigh Plus will do just that.

Unlike the other lift truck management control & reporting systems on the market that depend on large amounts of data (some irrelevant) from many data loggers installed on the lift truck fleet, over long periods with huge upfront costs with the potential R.O.I. down the road the ED3 SkidWeigh Plus will start increase your vehicle utilization immediately.

The best part of the ED3 SkidWeigh Plus system is that you can start with a minimum investment, with a single unit and get results.

In addition to the standard onboard check weighing function, the ED2 SkidWeigh Plus will monitor the operational pattern of the vehicle (moving loaded, unloaded, lift time, loads being lifted, etc.) in real time, every second.

If the operational pattern is less than the utilization factor for that operational facility, a visual warning and time down, counting in seconds, will be presented to the lift truck operator indicating the pre-warning of the utilization factor. The operator can either ignore it, which will result in the system recording (web based wireless or data logger recording) or continue with the normal operation that will cancel vehicle under utilization condition visual warning.

Note: The ED3 SkidWeigh Plus is a decentralized management control system based on a number of worldwide patented technologies (USA, Canada, Australia and EC Countries).

Further information www.skidweigh.com

www.hub-4.com/directory/6297

Bespoke weighing from Vehicle Weighing Systems

Vehicle Weighing Solutions says that under the Road Traffic Act and The Motor Vehicles (Construction and Use) Regulations it is an offence to use or permit the use of overweight vehicles, either GVW or axle weights for a variety of sensible, practical safety reasons. Offenders not only face a £5,000 fine, but repeat offenders could lose their Operator's License - and VOSA is good at identifying and stopping trucks.

The solution, it says, is to fit vehicles with systems that warn when an axle or vehicle is approaching an overload. One of the key drivers for this industry is Landfill Tax, which accounts for 60% of an operator's disposal costs. *"The upstream measurement transfer from volume to weight is working its way to individual bins providing optimum profitability and efficiency,"* VWS says.

There are also incentives schemes, such as Recyclebank (recyclebank.com) where residents are rewarded with credits for the amount they recycle and divert from landfill. The credits are exchanged for goods and services from retailers. Each truck has a bin weighing kit installed with an identification system, so that behaviour and the effect of marketing on waste producers can be measured.

Julian Glasspole, MD of VWS says *"We believe it is paramount that customers get value for money, especially in these difficult economic times. Quality and reliability are designed into the VWS product but speed and manufacturing techniques are also important factors at the point of assembly and packing. VWS customises its systems for each customer,"* he adds.

VWS has developed a range of systems to handle on-board weighing demands including M350S, which has been built for refuse collection vehicles and incorporates a clear, bright, easy-to-read display that can be dash, panel or weatherproof-trailer mounted and fits neatly into DIN cab radio slots. VWS is one the first companies to use modular open CAN technology.

The company's SD data card logger means weight readings can be easily stored and transferred stored so data can be analysed or weight-based invoices raised on basic and high end software systems. Other VWS products include the Enviroweigh bin-weighing system, and standard and bespoke weighbridge and platform weighing scales.

On-board weighing will continue to improve, especially in the way companies are organised and run. The key competence is proving to be quality products supported by a dedicated and skilled service team. Technology and legislation will continue to offer operators more safety and efficiency advances and this in-turn will deliver better services to their customers.

www.hub-4.com/directory/5736

Applied Weighing's HydraCal System Revolutionises Calibration

The ability to maintain consistently high product quality and optimise operating capacity are just some of the reasons why ensuring the accuracy of measuring instrumentation is afforded so much importance within the manufacturing industry. Indeed, calibration can provide a number of benefits for manufacturers, as well as ensure the safety of both employees and consumers alike.

However, traditional calibration methods are typically associated with production downtime and high costs. This can lead to instances of manufacturers prioritising calibration for some measuring instrumentation at the expense of those which are considered to be less essential. But the risk of neglecting calibration can lead to even greater costs being incurred.

Applied Weighing's HydraCal direct force calibration system allows for a weighing vessel or silo to be fully calibrated in the fraction of the time taken using traditional flowmeter or weighbridge calibration methods, thereby minimising production downtime and generating significant cost savings.

Their revolutionary, proven technique can be carried out easily on any weigh vessel with suitable jacking points fitted at each load cell location. There are two methods that can be used depending on the suitability and type of the vessel; reverse calibration and force calibration.

The reverse calibration method involves the HydraCal system being used to push a known amount of weight off a full or partially full system. Applied Weighing's engineers jack the system in multiple, measured intervals back to zero, enabling them to check the overall system accuracy, the system linearity and repeatability. This method can often be carried out without the need to modify an existing system as most systems already have a suitable jacking point at each load cell. Reverse calibration is particularly good on bulk storage silos which are rarely emptied, because the calibration method can be carried out with product in the vessel.

Alternatively, with the correct brackets in place, the force calibration method requires the HydraCal system to apply a measured force down onto a weighing vessel, thereby allowing Applied Weighing's engineers to calibrate the system in multiple intervals, often up to the full scale of the weighing system.

Both techniques are quick and simple once the calibration system is positioned, consequently limiting the downtime of the vessel and ensuring less production schedule problems. Calibration accuracy is to within 0.1%, signalling the technical superiority that Applied Weighing's HydraCal system has over alternative calibration methods. The system is also fully traceable, with certification issued as standard, and ATEX approved for use in hazardous areas.

First established in 1990, Applied Weighing provides a complete range of weighing solutions and systems. These are custom built to meet individual customer requirements. Their range includes platform scales, silo and vessel weighing systems, drum filling systems, high speed weighing systems, telemetry systems and load cells. Applied Weighing products are used in a diverse variety of industry areas including pharmaceutical, food processing, milling and bakeries, aggregates and cement, fuel oils, chemicals and plastics. Their aim is to provide quality products on short delivery times, backed up with comprehensive technical support. Applied Weighing is an ISO 9001:2008 registered company and is certified for the manufacture of ATEX compliant products.

To View further products: www.appliedweighing.co.uk

www.hub-4.com/directory/5735

Weighbridge mothballing; protecting your assets

At a time when a number of weighbridge systems and/or sites are temporarily closing due to a downturn in business, Brian Fisher, Regional Service Manager from Avery Weigh-Tronix, urges you to look to the future.

Naturally we all hope that closure of a weighbridge is merely a temporary measure and that it will be reinstated when the industry picks up again. Tempting though it may be, it is not a good idea to simply walk away from the weighbridge system and hope that it will be okay. Closing the system down properly will save you money in the long run.

If you are closing the site, consider whether it is worthwhile moving the weighbridge to another site to allow the asset to continue working for you. Such a decision could improve productivity elsewhere by increasing traffic flow and reducing queuing. If this is not an option, talk to your maintenance provider about the best way to proceed. If you don't, you could face an unexpectedly high bill when it comes to reinstating it.

The biggest problem faced by a disused weighbridge is the build up of mud, slurry and water and the potential of a nearby lightning strike. Both could affect the load cells, cabling and indicators and result in the weighbridge being rendered inaccurate and in need of repair. Load cells in particular are costly items to replace.

To save money on repair in the long term, it is worth calling in your service provider to decommission the weighbridge. They should remove the load cells and any cabling for safe storage so that they can be reused at a later date. When removing the cabling, it pays to plan for recommissioning. When your supplier removes the cables, they should leave draw wires in place so that it is easier to pull them back into place in the future.

Having removed the load cells, your supplier will raise the structure of the weighbridge up using packing material to maintain the height.

This is important for two reasons. First it ensures that the weighbridge remains structurally sound, particularly if the site is still operational and traffic continues to travel across it. Second it ensures that the steel structure is lifted clear of the pit floor so that it is not sitting in mud, slurry or water.

If the weighbridge is pit mounted it is worth carrying out a full inspection of the pit. You need to ensure that the drainage system is not clogged up, so that water and debris can drain away. Don't forget that most weighbridges are constructed from galvanised steel, so there is a danger of rusting if it is left sitting in water and the protective coating has worn away.

Although the weighbridge may not be used in the immediate future, the pit walls should still be inspected for bulging and seepage, particularly if traffic will still be crossing the structure.

Finally, having removed the more costly components for storage, you should make a note that it is worth inspecting the site visually on a regular basis. How often a regular inspection should take place is open to interpretation. If the site is still used then the chances are that mud and slurry will still collect over time in the pit even though the actual weighbridge is not operational. The best advice is to ask your service provider.

In conclusion, it pays to take care when decommissioning a weighbridge. It is, after all, a significant investment that is worth looking after. Call in your service provider; they should have the expertise required to ensure that the weighbridge can be recommissioned in the future with minimal cost. Even if you don't believe that this is an option, it is important to preserve your assets whatever the future brings.

www.hub-4.com/directory/6127

Greenbank helps clients weigh what matters and tighten their loose belts

The Greenbank Group UK now supply a wide range of belt weighers, weigh feeders and loss in weight systems to complement their heavy industrial engineering, materials handling divisions and boiler optimisation technologies.

Greenbank H&H Services' formed after the acquisition in 2009 of H&H Services provide products ranging from simple belt weighers to heavy duty, fully enclosed and explosion proof gravimetric coal feeders.

We compliment the load cell systems with a variety of controllers providing a total range of outputs. These can be coupled with belt weighing systems to give highly economic and effective solutions.

Our weighing and feeder control systems are supplemented with optional service agreements giving peace of mind performance and accuracy across the primary and secondary UK heavy industries notably: cement, quarries, aggregates, power generation, process plants, biomass and woodchip as well as tyre and plaster board industries.

Gravimetric feeder for Egyptian market handling kaolin at 70 tonnes per hour'

Greenbank H&H Services feeders range from low feed rate, high accuracy feeders for all industries such as pet foods and cereal manufacturers to high end output feeders providing multi product blending capability. Greenbank H&H Services also provide fully enclosed volumetric and gravimetric belt feeders.

Belt weighers with option of Merrick controller and H&H controller'

To ensure that all our products perform to the highest efficiency and technical specification, we provide full service and onsite support facilities. This is for both our own supplied equipment and other manufacturers such as the Merrick Inc. range of volumetric and gravimetric feeders. A full range of optional spares are available and can be stocked offering rapid response. Calibration certification, with accompanying data sheets can also be carried out. We also have an extended warranty facility from 12 months to 5 years giving clients long term peace of mind.

Feeder control panel'

View our site for further information - www.greenbankgroup.com

www.hub-4.com/directory/361

Bespoke heavy duty weighbridges play vital role at Tata Steel

Weightron Bilanciai Ltd have designed, built and installed three special versions of their robust Titan surface mount weighbridges for Tata Steel. The install comprises two 50 tonne weighbridges for weighing road vehicles entering and leaving the site together with an extra wide 100 tonne weighbridge for weighing large on-site vehicles. The new 18 metre weighbridge decks have been sized to replace existing weighbridges, which had come to the end of their useful life, fitting directly into existing foundations.

All three weighbridges are used extensively throughout the year, with the 100 tonne version clocking up an average of 150 weighings a day and the two road bridges over 300 weighings between them.

The Titan design has an excellent reputation for durability and accuracy. The weighbridge has a fully welded drive-through steel structure, designed to withstand very high concentrated loads and continual use, making it ideal for such harsh working environments. The varying concentration of lateral steel beams along the length of the deck takes into account high loading areas and the over-sized longitudinal beams are specified for minimum deflection along the 18 metre length.

Although the 100 tonne weighbridge is only used for weighing on-site vehicles, all three weighbridges are weights and measures approved. This gives added site flexibility, allowing the 100 tonne weighbridge to be used for weighing road vehicles if the need arises. The Titan weighbridges are fitted with Weightron's CPR fully welded stainless steel canister load cells and mounting assemblies, The CPR and its assembly is designed to optimise load introduction and prevent load cell damage, even under heavy braking conditions. The compact format of the CPR (and its CPD digital counterpart) provides a number of important technical advantages over other weighbridge load cell designs, especially more cumbersome beam cells.

Weightron have extensive experience in providing bespoke weighbridge designs for both pit and surface mount applications. This manufacturing versatility and flexibility, together with rapid turnaround, ensures optimised solutions for both new and retrofit applications.

www.hub-4.com/directory/2273

Weigh module systems handbook & online webinar

Take advantage of two great resources designed to make the implementation of weigh modules in large weighing systems easy and error-free.

METTLER TOLEDO has created a comprehensive handbook and an online seminar which detail the fundamentals of designing, building and installing customised solutions.

Covering the application of load cells and weigh modules for tanks, silos, vessels, hoppers or conveyor weighing systems, these are both free to access.

The Weigh Module Systems Handbook offers practical guidelines for engineers, designers and service personnel to avoid common errors. It covers the critical phases you should consider to achieve the required accuracy level in your process. These include design calculations, thermal effects, piping connections, designing of support structures and calibration.

With more than 150 pages it provides a complete library of information regarding the application and use of load cells and weigh modules.

In support of this document an online webinar is accessible on the METTLER TOLEDO website. This offers an additional opportunity to develop a greater understanding of implementing tank, silo and vessel weighing systems. Available on-demand, the session can be viewed at your convenience.

METTLER TOLEDO has a global presence in consulting, providing and installing tank, silo, vessel, hopper and conveyor weighing systems. It offers a comprehensive range of weigh modules, weight transmitters and terminals in various versions suitable for use in dry, wet or hazardous environments.

For a free download of the handbook visit: www.mt.com/ind-system-handbook
Or to access our online webinar visit: www.mt.com/ind-24x7-webinar-tankweighing

www.hub-4.com/directory/7340