

OCTOBER 2011



# CONVEYORS & CONVEYING FOCUS

**Canning introduce new conveyor belt ranges**



**Canning Conveyor**

**Material Handling Solutions**

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# Canning conveyor expand their existing conveyor belt ranges

Canning Conveyor is a major force in the supply bulk materials handling plant and equipment offering a vast range of products and services second to none, holding huge stocks of conveyor belting, idlers, rollers and many ancillary components and design, manufacture and install many types of conveyors, hoppers, conveyor drums and associated plant and equipment.

Recently, Canning Conveyor has made a substantial investment into expanding their existing range of conveyor belting and can now offer extensive stocks of new wider width belts.

## New Wider Chevron Conveyor Belting



Over and above the normal widths of 400-1200mm wide with various specifications 15 + 25mm high chevron or cleats, we now stock new widths from 1200-1600mm, with the new pattern width of 1000mm on base belts 315/3 - 500/3 - 630/4



## Friction Back Chevron Conveyor Belting

Canning have invested in a completely new range specifically for usage on flat or inclined slider bed conveyors which are ideal for recycling MRF's and scrap processing applications. New ranges are available from light to heavy-duty applications 450/500/600/650/750/1000/1200mm wide and are available in 15 + 25mm high chevron cleat.

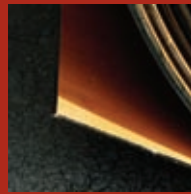


## Premium Solid Rubber

Canning has invested very heavily in this area and can offer stocks to cover virtually every application. The ranges available include pre-sliced widths and full roll widths from 100-1200mm wide and include every thickness from 3-50mm thick and are ideal for:

- Skirting
- Lining
- Scraper blades
- Matting
- Floor and wall covering





## Friction Back Smooth Top Conveyor Belt

New ranges have been introduced and include stocks of **Standard and Oil Resistant** quality focussing on a range of specifications designed to fulfil customer demands.



### Four ranges are available:

- EP 250/2 2+0 x 5mm
- EP 400/3 3+0 x 8mm
- EP500/3 5+0 x 10mm
- EP600/3 6+0 X 12mm

Ideal for recycling plants, picking belts, flat bed conveyors, scrap processing

## Vulcanising Equipment & Tools

A comprehensive range for both manufacturers and vulcanisers to acquire everything necessary to build and supply in-house and on-site vulcanisation services and products.



- Glues and solutions
- Buffing discs
- Vice grips
- Various tools-knives, brushes, rollers

## Side Wall Conveyor Belting including Walls & Cleats

With the large investment into the side wall conveyor belting and accessories Canning are now able to offer the opportunity for all to benefit from the availability of this specialised cross stabilised belt, wall and cleating. This product is not only sold in component form, but is now available ready-built to order by Canning.



### The new range includes:

- XE250/2+1 cross stabilising ply, 4+2
- XE250/2+2 cross stabilising ply, 4+2
- XE400/3+2 cross stabilising ply, 5+2
- XE400/3+2 cross stabilising ply, 6+3
- XE500/3+2 cross stabilising ply, 5+2
- XE630/4+2 cross stabilising ply, 5+2

Sidewall 40/60/80/100/120mm

Cleating, T-TC with heights - 35/55/75/90/110mm



**Canning Conveyor**  
**Material Handling Solutions**

For more information please contact:

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## 25 years of conveying experience with Game Engineering

**GAME Engineering Ltd over the past 25 years have built a solid reputation for quality and design, our efficient and cost effective solutions have seen the manufacture and installation of an extensive range of bespoke conveyors supplied into a variety of industrial sectors.**

The belt conveyor range that GAME are able to provide includes smooth, cleated and side wall belt conveyors handling a wide range of materials for various sectors including; Biomass, Fertilizer, Waste Recycling and Animal Feed.

Another area of expertise is the ability to get production facilities up and running again as quickly as possible after accidents; a previous client required this after a severe fire where equipment was damaged as a result. GAME attended the client's site and removed the damaged equipment, returning it to our works where it was thoroughly reconditioned and then re-installed. This work has been carried out working with insurers and has minimised costs to all involved.

GAME are able to design, manufacture and install conveyor systems from scratch for a client; if required however, GAME are also able to modify clients existing conveyors to meet their new requirements; as has been done recently for a very good long term customer.

**For further information on past projects or to discuss your requirements please email [sales@game-engineering.com](mailto:sales@game-engineering.com) or visit the GAME website [www.game-engineering.com](http://www.game-engineering.com)**



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GAME Engineering Ltd also designs and manufactures large diameter screw conveyors, which have successfully been installed to numerous clients, handling low-density materials. Our design team will look at client's specific requirements and manufacture special purpose machine tailored to suit their needs.

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## Beaufort Conveyors have made huge strides recently with the launch off a new Road Towable conveyor - THE EASIVEYOR!



Along with many other applications this conveyor represents the ideal solution for dosing steel fibres and ad-mixtures into concrete trucks. The 'EASIVEYOR' which weighs less than 600kgs can be easily towed from depot to depot or from site to site behind standard vehicles fitted with a 50mm ball hitch. The conveyor is based on an Easikit 450 conveyor 6 metres long and is supplied complete with a 110v Motor pre-mounted and wired with plug ready for connection to power supply.

The first of their new EASIVEYOR road towable conveyors, originally ordered by Tarmac, Buxton depot was delivered to a Tata site near Llanwern, Newport, South Wales recently to assist with a concrete pour. A spokesman from Tarmac said "We're absolutely delighted with this conveyor which is far superior in quality to anything else we have used before to add steel fibres to the concrete. I'd have to say that this is the easiest and safest way I've ever loaded fibres!"

He went on to say that recently they had experienced issues when a worker received a severe hand injury from one of the steel fibres. He said that in future it will be a necessity that all steel fibres are added using a conveyor.

Not only are the concerns of Health & Safety issues eliminated with this conveyor, but it also eliminates the need to hire plant for one-off uses and being road towable reduces expensive transport costs and worries.

Beaufort Conveyors are always happy to assist and advise with any conveying applications that you may have.

For more information on the Easiveyor, please visit [www.easikit.co.uk](http://www.easikit.co.uk) or contact Beaufort Conveyors on 0843 224 1111.



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# Air supported conveyor fills tall order for clean, low-maintenance operation

The nation's largest producer of construction aggregates has employed an innovative air-supported conveyor system to serve its new railcar loading station, allowing the firm to ship clinker in bulk quantities to its grinding facilities in Port Manatee and Tampa. With its stable ride and fully-enclosed construction, the system contains fugitive dust and reduces maintenance requirements, while taking excellent advantage of very limited space.

When company officials at the Vulcan Materials cement plant in Newberry, FL decided to ship clinker to remote grinding facilities, they knew it would require adding a new conveyor and load-out structure. The real challenge to the project came in designing the system so it would fit with the plant's existing silos and conveyors.

"The only practical option was to locate the railcar loading conveyor next to the existing pan conveyor, which carries clinker to the finish mill," explained Maintenance Manager Jim Kerns. "It was determined that the new conveyor would fit in a hallway running under the silos, but we knew that once installed, it would completely fill the available space," he said.



As a result, clean-up of any fugitive material accumulating under or around the conveyor would be extremely difficult and potentially dangerous without stopping the adjacent pan conveyor and shutting down production. That realization led to the search for a highly reliable conveying system with the proven ability to operate for extended periods with very little maintenance, one that could prevent the escape of fugitive material and also protect the load from rain that would introduce unwanted moisture to the product.

## Selecting an Air-Supported System

After reviewing a variety of designs and proposals, the company specified a Martin Engineering® Air-Supported Conveyor, a simple and economical system that resolves many of the issues encountered with conventional belt conveyors. With no moving parts that require maintenance on the load-carrying side, the system could be installed in the close quarters of the hallway under the clinker silo.

*"Air-supported conveyors eliminate the carrying-side idlers used on conventional conveyors, and instead use a film of air rising from a troughed pan to lift the belt,"* explained Greg Bieri, Global Project Manager for Martin Engineering.

*"By removing a source of friction that requires periodic maintenance, air-supported designs offer significant advantages -- including energy, environmental and safety benefits -- yet the cost is competitive with traditional belt conveyors,"* he said.

The Martin Engineering system does not require a compressor, powering up to 600 feet (183 meters) of conveyor supported by a single low-power centrifugal fan. Extremely low friction inherent to the design can reduce overall drive power requirements by as much as 30% on a horizontal conveyor.

The use of air supported conveyors also eliminates the need for idler adjustment to correct belt tracking issues. The advantages include extended belt life and reduced maintenance costs, as well as improved safety by limiting employee exposure to moving components.

## Simple Concept for a Smooth Ride

The concept of the air-supported design is fairly simple, with the load zone and carrying sections contained in a plenum that's pressurized by the centrifugal fan. The carrying surface of the plenum is typically shaped to the





parabolic curve profile of a conventional belt conveyor, with a 35° trough. Holes in the top of the plenum create an air film between the plenum and belt, which supports the moving load.

The return run does not require air support, and many systems incorporate conventional idlers on the return side. By using standard take-up drives, chutes and support structures, the air-supported design allows conversions of, or connections to, existing standard belt conveyors.



At the Newberry plant, the 24-inch wide (610 mm) air-supported conveyor negotiates a vertical curve to elevate the load 25 feet (7.6 meters) over the 290 foot length (88 meters) from the bottom of the clinker silo to the top of the load-out structure. Capacity is set at 400 ST per hour (363 tons) of 1-inch minus (25 mm-) material, with a belt speed of 350 feet per minute (106.7 meters per minute). The troughed conveyor is moved by a 25 HP (18.6 kW) drive motor, and the air support system uses a 15 HP (11.2 kW) blower to raise the belt.



The air-supported design from Martin Engineering eliminates maintenance issues such as idler lubrication and belt alignment, and the modular system allows replacement of existing conveyor sections with CEMA standard construction. Air-supported and conventional roller sections can be mixed to accommodate loading zones, tracking idlers, belt scales or other needs. With its stable path, an air-supported conveyor can operate at a steeper incline than roller conveyors, which can reduce the overall length and installed cost.

Two belt feeders at the Newberry plant meter the material through rolling blade gates to deliver a consistent load to the conveyor and prevent the “starve and flood” conditions that can impede smooth operation. The material flows into ceramic-lined transfer chutes, also supplied by Martin Engineering, then onto the conveyor.

As the material enters the discharge tower, it passes over a belt scale and into a retractable dustless discharge chute, which extends down into the railcar opening. The discharge chute is installed on a positioner that delivers up to 6 feet (1.8 meters) of travel perpendicular to the tracks to accommodate various loading hatch arrangements. An insertable dust collector is installed at the head pulley to catch any material that becomes airborne.

“Fugitive material control was a critical element of this system,” Kerns added. “We needed to prevent the need for maintenance in the confined space location, but we also had environmental objectives. Alligators and other protected species inhabit this area, and we wanted to ensure that dust didn’t migrate from the process.”

Results at Vulcan’s Newberry plant have been very positive, and the company reports virtually maintenance-free service from the air-supported system. “The product condition is excellent from the smooth handling,” Kerns concluded. “And with the fully-enclosed system, there is no contamination of the conveyed material or escape of fugitive dust.”

Vulcan Materials Company, based in Birmingham, AL, is the nation’s largest producer of construction aggregates and a major producer of other construction materials, including asphalt, cement and ready-mixed concrete. The firm produces aggregates (primarily crushed stone, sand and gravel) that are used in nearly all forms of construction, particularly the large quantities of aggregates needed to build roads and commercial properties.





## Pneumatic conveying systems used for tunnel fill



**Aptech has supplied two pneumatic conveying systems as part of a major gas pipe project in the Greater London area. The systems were designed to backfill 6ft and 8ft tunnels with ground glass or sand.**

Rather than relying on the traditional method of using liquid grout to fill tunnels of this type, the use of a dry fill was favored. Once grout is set, ground movement can cause it to crack, resulting in potentially damaging levels of stress being imposed on the gas pipe. A dry fill would allow the pipe to move. Then there was the question whether it would be possible to pneumatically convey dry fill the distances required.

*"Aptech were the only company to develop a solution that we had confidence in," says Chris Rixon, advisor to the project. "Following small scale trials, we were impressed with the final designs and ability to manufacture pneumatic conveying systems that would fill the tunnel effectively."*

*"To have used liquid grout would have required building bulkheads along the tunnel at frequent intervals and then pumping in grout to fill behind them. Even then, this method makes it difficult to fill to the roof and provide a complete and stable fill. Originally a year had been allowed to fill the tunnels with liquid grout, but Aptech completed the dry fill in just four months."*

Aptech's design included support and movement of the conveying pipe in the tunnel. A cable also runs down the tunnel to instruments at the end of the pipe.

Robert Skelton, Aptech's managing director says *"These machines operate at high pressure, so can convey long distances. Instead of a rotary valve which would wear, they use a screw conveyor to meter the sand into the conveying pipe. The two machines, for small and large tunnel filling, were designed, built and put straight to use. For other applications, this high pressure method of pneumatic conveying is suitable for conveying cement, minerals and biomass."*

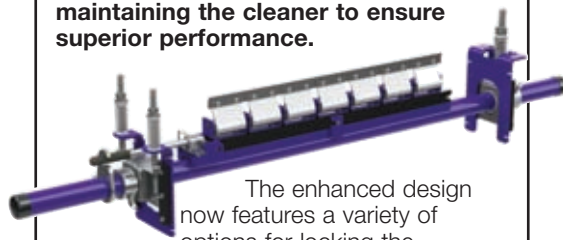
The sizing of the conveying systems uses Aptech's unique pneumatic conveying software. This analyses each section of the conveying system, predicting velocity and pressure change at every stage including changes in pipe diameter.

The two systems were distinct insofar as the smaller, lower pressure system was designed to discharge ground glass or sand from 1Te big bags and convey it at up to 14Te/hr to fill tunnels up to 300m long. The larger, higher pressure system was designed to transfer the dry fill from silos to a delivery system, weigh and convey it at up to 60Te/hr to fill tunnels up to 1000m long.

With over 30 years of experience specialising in the design, supply and installation of process systems and equipment, Aptech has established itself among the leading players in powder and solids handling. Through using the latest technology, their comprehensive range of products deliver technically advanced yet cost effective solutions.

## Flexco expands line of service advantage cartridge™ cleaners

**Flexco has simplified installation and maintenance of the Service Advantage Cartridge™ for the Minline® MHS Heavy-Duty Secondary Cleaner and added the feature to its P-Type® Secondary Cleaner and R-Type® Reversing Secondary Cleaner. The Service Advantage Cartridge is ideal for limiting downtime and easily maintaining the cleaner to ensure superior performance.**



The enhanced design now features a variety of options for locking the cartridge into place, making it adaptable based on local codes and offering solutions for varying space constraints during installation. The Service Advantage Cartridge slides out from the accessible side of the conveyor or chute wall for inspection, service, or replacement by a single worker in only a matter of minutes.

*"The enhancements made to the Service Advantage Cartridge allow flexibility for maintenance and installation options, making it even easier to service and inspect the cleaner," said Ryan Grevenstuk, product manager for Flexco. "Adding this feature to our P-Type and R-Type provides an economical, yet service-friendly solution as well."*

Blade cartridges can be removed in minutes and can be changed without removing the complete assembly pole or brackets from the conveyor. Instead, changing the cleaner blades is done by simply removing a pin, sliding the blade cartridge out through the side, and replacing it with a new or rebuilt blade cartridge. This feature allows maintenance workers to replace multiple blade cartridges during the same maintenance period, saving time and money. The cartridges can also be easily rebuilt on site.

All three cleaners are durable and can be serviced in even the most severe weather conditions. Additionally, the side slide-out design is safer for workers because it doesn't require them to access tight spaces to remove the cartridge.

A dual cartridge design that splits in the middle for removal from both sides is also available for belt widths of 60 in. to 120 in.

**For more information on the heavy-duty line of cleaners from Flexco, log on to [www.flexco.com](http://www.flexco.com).**



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## C&K Fitzpatrick launches the WorkSmart range of troughing sets

It's no secret that industry in Ireland is experiencing difficult operating conditions. The conveying sector has been hit particularly hard by the collapse of the quarrying industry which comprised a large proportion of the entire sector. C&K Fitzpatrick has responded to this change by looking for efficiencies within their existing high quality products and a good example of this is the new WorkSmart range of troughing roller sets.

The Irish troughing set market is dominated by the widespread use variable angle troughing sets. While these sets are useful for certain applications, they can be vulnerable to damage on wing rollers or twisting of the frame. However any replacement would have to be compatible with these rollers which are used throughout the quarrying and recycling industries.

*"We looked at where savings could be made without compromising quality" says Mark Fitzpatrick. "the solution was to utilize the Sandvik (formerly Gurtec) GUP line which mass produces standard rollers at the rate of one every fifteen seconds."*

The Sandvik GUP roller production line is a state of the art line based at Schoppenstedt in Germany. The line is fully automated with automatic cutting, welding and powder coating of the rollers. Shafts are also manufactured on the automated line and fitted complete with bearing and multiple labyrinth seal. These rollers comply to Sandvik's high quality standards and are interchangeable with rollers from the manual GST (bespoke rollers) line.

C&K Fitzpatrick have carefully designed and manufactured a frame to be interchangeable with existing Sandvik and competitor variable angle sets. In most cases it is a simple matter of bolting one set out and the new WorkSmart in. Once installed, all of the rollers are of the "drop-in" type and so there is no struggling corroded U-bolts. The fixed angle design provides a secure side supported troughing set capable of standing up to demanding applications. While the angle base and off-set rollers ensure that any material build-up can easily fall free.

This type of innovation is key to maintaining a competitive position in difficult trading conditions. C&K Fitzpatrick has implemented this innovation throughout their range of conveyor belting, belt fasteners, belt cleaners and conveyor accessories, bringing value to the customer without resorting to lower grade products.

For further information contact C&K Fitzpatrick at [info@ckf.ie](mailto:info@ckf.ie) or [www.ckf.ie](http://www.ckf.ie)

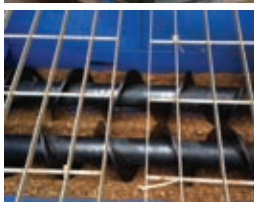


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## Soderhamn Eriksson create a clean & safe environment

Söderhamn Eriksson Ltd is a supplier of conveying machinery for various industries. The conveyors are manufactured in Sweden and Germany and are of a very high quality being heavy, strong and reliable in design.



We have recently completed a new bulk intake and delivery conveying system at Guys Marsh Prison in Shaftesbury in conjunction with Game Engineering. The scope of the project included designing an intake system for transferring woodchip to a storage bunker to fit in a very small footprint, due to restricted space on site. This problem was overcome by using The PST 'V' System Shaftless Spiral Conveyors. A dual spiral intake hopper which is fed by 30m<sup>3</sup> tipper transports the woodchip into a 6m Vertical Spiral conveyor which then feeds two distribution conveyors. The complete

load is emptied in under 30 minutes. The complete system is totally enclosed creating a clean and safe environment which was one of the main priorities for the project.

Our reputation for imaginative solutions to conveying problems and delivering to plan is something we are very proud of. Each and every installation is bespoke to the customer's requirements who we work very closely with throughout each project which creates an excellent working partnership.



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# Baioni crushing plants: improve your material handling efficiency.

Baioni Crushing Plants is the world's partner in the production of machinery for the mining and quarrying industries, recycling and contractor market, aggregate washing sector. All production and assembly phases are carried out by technical expert staff able to offer a high specialized support. Over a surface of 70.000 sqm Baioni Crushing Plants supplies means, tools and resources to achieve the final product, yet maintaining high qualitative standards and rapidity on execution. Continuous and meticulous quality checks grant the efficacy and efficiency of every product.

Thanks to the experience gained in the field, Baioni Crushing Plants provides heavy duty belting system for applications in mines and quarries, for such materials as ore, stone, tailings, gravel, aggregate, etc. Tested in Spring 2010 at the big installation known as "Quadrilatero", Baioni employed a reliable conveying system whose characteristics and features are described below.

## A full range

- Inclined conveyor belts: designed for use in conveyance of material up an incline, they are best used to transport aggregate to the different sections in a crushing plant.
- Bucket elevators: mainly used in sand production plants or washing plants.
- Extracting conveyor belts: usually used to extract the materials from feeding to crushing or screening.
- Horizontal conveyor belts: usually fitted with side walls and feet or trestles to convey aggregates horizontally.

## Main characteristics

Baioni conveyors are made of steel structures, protected from corrosion by hot dip galvanized with zinc deposition on the surface, the drive end and the tail end are preassembled in the workshop the intermediate parts consist of two side walls and the central frame and are designed to have small footprint during transport, yet not compromising the sturdiness and solidity of the belt. The shaft and the drum of the either end are not welded but fixed by some rigid couplings to ease any replacement in case of damage of some parts (i.e. brake of a bearing, etc...).

## Transmission

Direct transmission with helical gearbox, pulleys and belts. Electric motor equipped with hydraulic joint to



make the start of the conveyor sweeter, protecting the entire transmission. In its basic form Baioni belt conveyors consist of a driving head pulley, a tail pulley, the moving belt, support rollers, cleaning devices, tensioning mechanisms and a structural frame. The classic transmission system through motor, belts, pulleys and gearbox is the guarantee of the maximum flexibility of use, offering the possibility to adjust the speed according to every need.

## Main components

- Rectangular box-type frame (in modular sections).
- Rubber belt in rayon material coated with anti-abrasive rubber.
- Couples or terns of anodised rollers with easily changeable sealed bearings.
- Cambered drive and driven rollers; drive roller with rubber coating.
- Adjustable driven roller supports.
- Transmission unit.
- Belt scraper.

The positioning and support system can be carried out in two versions:

1. For « mobile » or « skid mounted » conveyors, short or medium length, support is available by means of a "V" shape trestle, mounted on a suitably load-bearing axle with tyres or a ground supporting beam.
2. For « fixed » conveyors, long length, support is given by vertical supporting trellis or by trestles with stretching steel cables.

## Standard accessories

Baioni conveyor belts can be equipped with the following accessories:

- Side gangway with safety rail.
- Sidewalls.
- Anti-wind or anti-rain cover.
- Upper and lower cover.
- Discharge chute.
- Removable feed hopper with rubber protections.
- Rollers with damping rubber rings to be fitted under the feed hopper.



Supplied as standard is a belt scraper, a strong and anti-corrosive cleaning unit for easy maintenance and maximum belt cleaning efficiency. Baioni Crushing Plants thinks it is vital to adopt a system of cleaning already in the conception of a conveyor, above all for those plants requiring a high standard of cleanliness. Baioni belt scrapers have an adjustable spring tension system: springs push the bar supporting the different scrapers, usually chosen according to the material to be processed. Amongst them, some scrapers have some widia inserts, highly resistant to abrasion and wear and particularly suited for abrasive and dirty materials. The use of belt scrapers reduce the loss of material, increase the plant capacity avoiding most of the wear of the return rollers, thus reducing maintenance costs and downtime.





Baioni Crushing Plants is dedicated to providing quality conveyors engineered to last; cleaner devices also come from a ploughshare shaped scraper usually placed on the tail end to prevent rollers from getting dirty and material from falling accidentally on the belt.

To promote long, trouble-free life to every conveyor Baioni Crushing Plants makes sure that the designer has designed it with quality components that can handle the entire range of forces generated in its use. One way to insure that is to engineer every part taking a load and then review the design calculations and the component selection.

Baioni Crushing Plants considers itself to be more than just a supplier. It offers real help and support to every customer, with whom it does its best to co-operate in a reliable and genuine manner, striving to achieve mutual satisfaction and success. Safety is also a big issue! Baioni conveyor belts comply with safety devices required under the EEC machinery directive 2006/42/EC. A corresponding declaration of incorporation and the relative use & maintenance manual is always supplied.



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## Flexco Introduces new state of the art test rig

**Flexco recently welcomed a new addition to its product development lab, which will accelerate the design and testing of new products. The 120,000 lb. capacity test rig will boost product development efficiency, making way for new concepts and solutions. While there are other test rigs in the industry, the custom-made rig was specifically designed by Flexco engineers to put a variety of products to work and measure the success and compatibility of each.**

The rig replaces the previous test rig, which was utilized heavily for the past 30-plus years at Flexco.

"The diversified product offering at Flexco, combined with increased belt tensions and the continuing evolution of belt construction, prompted us to invest in this new rig," Greg Westphall, director of engineering at Flexco, said. *"It's a one-of-a-kind machine designed and built by Flexco to enhance our testing platform and accelerate our design process."*

Westphall is quick to point out that, although the new rig is a significant upgrade from the previous one, it is not designed to replace field-testing. Instead, the new test rig ensures that products have undergone rigorous in-house testing before being placed in the field.

While the previous rig was focused mainly on testing mechanical belt fastening systems, the new rig will test the full line of Flexco products, including trackers, cleaners, plows, rollers, and lagging. Located in close proximity to the engineering department at the Downers Grove, Ill. headquarters of Flexco, the rig measures 24 feet (7.3 m) high and 12 feet (3.6 m) wide and weighs approximately 60,000 lbs.

The rig is modeled after the DIN-22110-2 Standard. It is equipped with six lagged 32" (800 mm) pulleys with a maximum belt speed of 1600 ft/min (~8 m/s). Belt widths from 8" to 32" (200 mm to 900 mm) can be tested, while tension can be cycled dynamically up to 120,000 lbs (533 kN) of force. The rig also features HMI touch-screen technology, hydraulically-actuated dynamic tracking, and a catwalk that hugs the perimeter of the machine for easy viewing and testing. The new design also allows for greater accessibility of data acquisition equipment, including high-speed cameras and vibration and force transducers.

*"While the capabilities of the rig are impressive, the size offers additional benefits," Westphall states. "When you can test cleaning, fastening, tracking, and other product functions all at the same time, you not only gauge the performance of individual products, but also their compatibility. This aligns with the Flexco philosophy of a holistic approach to maximizing belt conveyor productivity."*

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## Guttridge supply Carier™ Cereals Handling Equipment for new Cereals Handling Project



**Guttridge's experience and reputation of manufacturing bulk material handling equipment has recently resulted in an order of Carier equipment for a new installation in the Farming Industry.**



Working alongside the main contractor Chief Industries UK Ltd who designed the new plant and supplied a 75t/h dryer and a 100t/h aspirator for the project, Guttridge manufactured and supplied a range of Carier 100t/h conveyors and elevators all of which were installed at Kneesall Lodge Farm which is part of the Thoresby Farming Estate.



Chief Industries UK Ltd have years of experience in the design and installation of grain handling facilities, from on-farm drying and storage to large port terminals and is the UK subsidiary of Chief Industries based in Nebraska, USA.

Choosing Guttridge to supply was a straightforward decision as the Carier brand is well known and respected in the UK. Mark Temple-Global Sales Manager of Chief Industries UK Ltd, commented, *"This installation was particularly environmentally sensitive and we had to fulfil certain criteria with regard to noise emissions. As*

*well as supplying our own equipment to within given limits we were confident that the CARIER range of equipment would fulfil our requirements and compliment our own high standards"*

Operating at 100tph material is fed into either of the 2 wet grain pits and is subsequently fed via chain and flight conveyor onto an inclined conveyor which feeds the aspirator pre-cleaner which removes dust, chaff, husks, awns and material lighter than the grain. From this point material is transported vertically by a belt and bucket elevator where it passes through a diverter valve and into the dryer with any overflow returned via a horizontal conveyor to the wet grain pit.

Dry product is then fed onto an inclined chain and flight conveyor which supplies the second belt and bucket elevator. As before material passes through a second diverter valve (same duty) and is then delivered onto an inclined conveyor onto the final 6000t store and bulk outload conveyor.

Although a relatively simple operation, the Carier equipment provides a cost effective and reliable solution for this type of grain handling system.

Specifically built for cereals handling and storage on farms the Carier range is now fully integrated into the existing Guttridge product ranges. Offering high quality at a low cost the new Carier range of conveyors and elevators is designed for throughputs between 40-100tph of cereals. Suitable for handling a wide range of free flowing and semi-free flowing products the Carier range has many applications throughout the Cereals Industry.

All the equipment was successfully installed and commissioned by Chief UK, including the PLC control system.



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