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> YOUR PRODUCT OUR KNOWHOW

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GLOBAL PERSPECTIVE – LOCAL FOCUS



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Cimbria is an international company with its headquarters in Thisted, Denmark. The company was founded in 1947 and we are proud of our long history of supplying good, reliable solutions based on in-house technology and utilising the opportunities presented in the global market. During the past 70 years we have accumulated a product portfolio and knowledge base that make Cimbria a relevant partner for our customers with regard to the delivery of high-quality solutions based on internal technology. Our employees' knowledge, our customer focus and our ability to execute projects internationally have made us the global supplier we are today. Our global reach has been further boosted since Cimbria became part of the AGCO Group in 2016. Work has subsequently focused on collaboration with other AGCO brands such as GSI, which occupies a leading position in the delivery of round steel silos used for the storage of grain.

Cimbria's core business areas are the grain and seed segments, where our primary markets are grain, seed, animal feed and foodstuffs. Cimbria has been a market leader in the seed corn segment for many years, and together with GSI we now hold a global leader position as the world's largest's supplier of equipment, complete solutions and technologies for the grain and seed market. Our plants and equipment, however, also have applications in other markets, such as breweries, malting houses, fertiliser storage facilities, biomass treatment plants and cement factories, in addition to the handling of other bulk goods.

Cimbria's mission is to contribute to the creation of a sustainable link between efficient production and optimum utilisation of agricultural crops, whilst at the same time ensuring due consideration of man and the environment. We achieve maximum mechanical utilisation with minimal environmental impact, and our equipment and projects play a significant role in terms of securing the global food supply.

Thousands of Cimbria plants are in operation in many parts of the world, running in vastly different conditions and handling a wide range of products. This versatility has resulted from research and development, and is the best reference for our expertise and competitiveness in a global market.

Credibility, quality, efficiency and flexibility are just some of the criteria that have made Cimbria a relevant partner for many of our customers all over the world.

We design, develop, manufacture and install customised solutions, ranging from stand-alone machines, through complete processing lines and finally to major turnkey plants that feature advanced automation and information systems. Our after-sales service ensures that Cimbria solutions generate optimum yield for our numerous customers for many years, whilst constant innovation ensures that our customers always enjoy the benefits of the latest technology.

Knowledge of our customers' business areas - including their

needs, wishes and requirements – enables Cimbria to deliver fully integrated and efficient solutions. Over the decades, Cimbria has acquired the requisite skills and knowledge of crops and agricultural logistics, with these skills and knowhow then being applied to develop our solutions in consultation with our customers. Our experience within agriculture, combined with reliable solutions in terms of manufacturing, engineering and project management, means that Cimbria is a strong and credible partner for customers for whom it is crucial that their projects are completed on time, stay within budget and deliver maximum return on their investment. Cimbria's expertise within agricultural production and processing is part of the service we provide in order to optimise plant performance and to ensure that the operators are trained to exploit the full potential of Cimbria products or solutions. We have the same goals as our customers, as reflected in our core values: "Solutions Together".

Our vision remains unchanged: that Cimbria shall maintain and further develop its position as a global, innovative and leading supplier of high-quality products and processing equipment for the treatment of grain and seeds, as well as the handling of animal feed, foodstuffs and other bulk goods. Cimbria's automated integrated solutions and our knowledge of our customers' applications enable us to support our customers with further information in terms of their production. This information is increasingly being made available in Cimbria's automation and information systems, and our customers use this information to optimise their value chain. In addition to our more than 950 dedicated employees, we are represented by a large number of Cimbria and AGCO offices, dealers and agents throughout the world, meaning that we are always close to our customers and in a position to provide service. Their dedication and capabilities are among the key factors in our success.

In this magazine you can read about a selection of our recent market activities and latest technology.

The Cimbria Group has offices in:

Denmark · Austria · Czech Republic · India · Italy · Spain · Kenya · Egypt · Turkey · Malaysia · Morocco · Russia · Thailand · Ukraine · United Kingdom · Germany · Kazakhstan

As well as Partners in:

Argentina · Australia · Bangladesh · Belgium · Brazil · Bulgaria · Canada · Chile · China · Colombia · Ethiopia · Finland · France · Germany · Greece · Hungary · Iraq · Ireland · Israel · Italy · Japan · Kazakhstan · Lithuania · Mexico · Montenegro · Netherlands · Pakistan · Peru · Philippines · Poland · Portugal · Romania · Russia · Serbia · Slovakia · Slovenia · South Africa · South Korea · Sweden · Switzerland · Taiwan · Turkey · United Kingdom · USA · Vietnam



NEW RECORD-BREAKING YEAR FOR DOTNUVA BALTIC

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Turn-key silo plant in Estonia Scope of supply: Chain conveyers 150 TPH, bucket elevators 150 TPH Delta pre-cleaner 200 TPH, Continuous flow dryer 80 TPH, storage silos 6x800 t, hopper silos 4x400 t.



Turnkey 4.000 t silo plant in Siaulial region, Lithuania Scope of supply: Chain conveyers 60 TPH, bucket elevators 60 TPH Delta pre-cleaner 60 TPH, continuous flow dryer 35 TPH, storage silos 2x1750 t, hopper silo 300 t. After a wet and complicated harvesting season in 2017, farmers, cooperatives and grain trading companies in the Baltic States decided to invest in grain drying and storage facilities in order to be prepared for the coming season. Interest in grain handling equipment was huge in all 3 Baltic States: Lithuania, Latvia and Estonia.

Dotnuva Baltic, known in the Baltic as a Cimbria dealer and supplier of high quality and reliable equipment had an extremely busy year, with the number of projects being almost doubled. Dotnuva Baltic in Estonia succeeded in securing a nice order for a turnkey silo plant with the biggest Cimbria dryer in the Baltic (80 TPH). The project was successfully implemented - Dotnuva Baltic was responsible for the entire project, all the way from design/engineering, foundation construction, equipment supply, installation and automation works.

2 silo plants with a total capacity of 34,000 t were completed in Latvia.

As in the previous year, most of the installations were built in Lithuania. The total capacity of the grain silos built by Dotnuva Baltic UAB in 2018 exceeded 135,000 t. The majority of the silos were installed for cooperatives and grain trading companies, as farmers invested primarily in drying plants.



15.000 t silo plant in Rezekne, Latvia Scope of supply: chain conveyers 100 TPH, bucket elevators 100 TPH, Delta pre-cleaner 100 TPH, continuous flow dryer 55 TPH, storage silos 2x5100 t and 4x1100 t.

INNOVATIVE DRYING SOLUTIONS FOR LANTMÄNNEN



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Cimbria has won the order of two big projects for Lantmännen in Sweden consisting of intake, pre-cleaning, drying and storage for new grain terminals.

Both plants will have new ECO-Logic continuous flow dryers, which represent the absolute state-of-the-art in terms of current technology. In addition to the drying process, both projects are designed for reception and storage of various grains.

The first project, Hargshamn in Uppsala, north of Stockholm, will be ready in February 2019 and dry-tests and testing of the dryer and the control system will continue immediately after installation is complete.

The second project is for installation in Hammenhög, close to Ystad in southern Sweden. In Hammenhög, in particular, the plant will carry out fine cleaning of malt grain outside the harvest season.

Mechanical installation will commence at the beginning of February 2019 and is scheduled to be finished at the end of June 2019, with performance tests and training of operational personnel due to be carried out during the 2019 harvest.

The newly developed continuous flow ECO-Logic dryers are equipped with the latest generation of automatic operation control and process control, as this is an essential part of the drying process. In addition, variable heat recovery of dry air and dust extraction are performed in integrated tangentially-acting dust separator Dust Guards.

The two dryers are not heated by fossil fuels such as oil and gas. The first dryer for the Hargshamn project is heated with direct electrical heating, whilst the second dryer for the Hammenhög plant is heated with water from a boiler plant fired with renewable fuel. The electrical heating method, in particular, has many advantages, not least in terms of regulation, whilst at the same time ensuring a good and highly uniform distribution of heat throughout the drying process. These advantages are particularly significant in connection with the size of the facility, which corresponds to a capacity of more than 100 TPH.

The fans for aspiration and recirculation are equipped with frequency converters, so that the power consumption of the large fans is controlled according to exact requirements. The dryer is equipped with automatic control of the recirculation zone, which is controlled in increments depending on the product, as well as the temperature and humidity of the grain and dry air.

Construction and technical features: Intelligent drying with optimum energy consumption

The ECO-Logic dryer was introduced to Cimbria's customers at the Agritechnica exhibition in 2017, with the ECO-Logic as one of Cimbria's main exhibits.

For customers, gentle and uniform drying with optimum energy consumption are essential, in addition to a high level of automation and remote control, low dust emission and low noise levels. These requirements are augmented by demands for high reliability and availability, as the dryer has to operate without interruption during the harvest and drying season.

A continuous flow dryer consists in principle of three sections: The heating section, the dryer column and the exhaust section. In the heating section the ambient air is heated and mixed with the recirculated air and is led into the drying column via hot air ducts.





The grain terminal with the newly developed ECO-Logic dryer during installation

Dust emission control is performed by means of Dust Guards which are integrated tangentially-acting dust separators

In the drying column, the heat of the drying air evaporates the moisture in the grain, while at the exhaust section the drying air is expelled through the exhaust fan and the dust separation devices.

Gentle and uniform drying

The main objective in the heating section is to obtain a completely uniform temperature at the dryer column inlet. For the ECO-LogicTM dryer a hot air mixer was designed by utilising Computational Fluid Dynamics (CFD) analysis and this air mixer ensures a +/- $5C^{\circ}$ tolerance of the drying air to guarantee even, accurate and gentle drying of the grain.

The discharge device of the dryer column ensures an even discharge of the grain across the entire outlet area of the dryer. The discharge principle is based on Cimbria's well-known volumetric discharge system, which provides a very accurate indication of capacity, since each discharge has a certain fixed volume. High grain quality is maintained, thus assuring germination ability and grain quality.

The ECO-Logic[™] has been designed to redirect the hottest grain so that it changes place with the colder and wetter grain at the colder part of the dryer in order to ensure even drying of the grain.

Energy-efficient solution

A prerequisite for achieving high dryer efficiency is to ensure that the exhaust air humidity level is as high as possible and the volume flow of the exhaust air is as low as possible. With the very even temperature distribution and accurate control of the dryer, the drying temperature can be increased and kept at a high level without damaging the grain, thus ensuring high humidity in the



Flat storage steel construction

exhaust air and hence high efficiency. To reduce the volume flow of exhaust air and to utilise the fact that the exhaust air at the lowest drying sections is not fully saturated and is relatively warm, the number of recirculation sections has been optimised and is controlled by a sliding valve.

In general, the new dryer is approximately 20 % more efficient than a traditional dryer such as the A-dryer and 10 % more efficient than a dryer like the ECO-Master.

Low dust and noise

The ECO-Logic[™] is provided with fans of the centrifugal fan type with limited noise emission. For control of dust emission, a dust guard is designed to capture the dust particles, thus ensuring that the ECO-Logic[™] dryer complies with environmental regulations.

THE LARGEST PLANT IN SPAIN FOR CLEANING OF PULSES



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Nine Delta Super Fine Cleaners on a row

The largest distributor to supermarkets in Spain is located in Vidanes (León) in the northern part of Spain. At the beginning of 2018, Cimbria supplied 9 processing lines for cleaning pulses to their newly built factory.

The company cleans and produces pulses such as lentils, chickpeas and beans for human consumption; hence the demands for processing equipment are significant and very strict. Cimbria won the order due to their expertise and capability of meeting the demand for high quality equipment that ensures high efficiency and durability. Moreover, Cimbria benefits from its excellent reputation as a trustworthy and oft-chosen company with several reference plants in the Iberian Peninsula.

The 9 cleaning lines consist in total of 9 Delta Super Fine Cleaners, 9 Gravity Tables, 28 Pendulum Bucket Elevators PBE10 for gentle vertical conveying, 9 Supercyclofans for dust air filtration and 3 SEA Chromex 5 electronic sorters.

The nine lines are fed separately and can clean multiple products at the same time. Three of the cleaning lines are used for filling products into big bags. These products are subsequently cooked and canned. The other six lines are for packing in 0.5 kg – 1kg bags.

Start-up and commissioning were carried out in February 2018 and the installations are running smoothly.

Following successful delivery at the beginning of the year, the customer decided to sign yet another contract in October 2018 for 4 SEA Chromex electronic sorters with 5 chutes and additional conveying equipment. The SEA sorters will be implemented of the processing lines before packing of bags for consumer sales.



SEA Chromex color sorter

28 Pendulum Bucket Elevators combine gentle horizontal and vertical conveying in a single machine

SEED CLEANING PROJECTS ON THE US MARKET



Darin Stutler - darin.stutler@bratney.com

Bratney Companies, provide Cimbria cleaning systems for Richland Innovative Food Products - North Dakota

2018 has seen a large push in edible product plant improvements and new construction. With changes in the Food Modernization Act, many clients are upgrading their plants to meet end user needs with focus on quality and machine design.

One of our major projects for Cimbria products is for Richland Innovative Food Products, a leading producer of edible soybeans (natto, blacks) and coloured corn (blue and purple) in both non-GMO and certified organic. The group has facilities in the Red River Valley of the Dakotas and Minnesota. The company was founded in 1999 and has seen large growth in demand for the export and domestic food markets.

Bratneys Companies new Fargo office was contacted in late 2017 with a request to upgrade Richland Innovative Food Products existing facility for edible soybeans in Dwight, ND. Subsequently, a flow was developed by our team of Chris Davies and Rollie Greuel.

Our scope was to provide an upgraded cleaning system with associated design, engineering, conveying and installation that took place during this year. The key components chosen for this system were the Cimbria Delta Super Cleaner and Flat Screen Grader, Cimbria Chromex colour sorter and Cimbria ZS sizers. According to President Rick Brandenburger, "Bratney and Cimbria products exceeded our expectations and confirmed that we picked the best partners."

In the mid-west irrigated state of Nebraska, Bratney and Cimbria products were chosen for the new Preferred Popcorn facility.

Nebraska is the perfect location for dry weather, with vast irrigation systems utilised to raise perfect popcorn for both the domestic and demanding export markets.

Bratney was the preferred supplier for this new plant, based on our long history of popcorn facilities in the Midwest. With Preferred, we spent time reviewing all their needs for a quality finished product: plant design and new food safety standards from reception to the finished bagged product.

Norm Krug - CEO: "We knew that Bratney understood our message that we wanted to produce the best quality in the world."

With that degree of trust, Randy Luken and the rest of the Bratney team developed a new greenfield plant with Cimbria products being the workhorse of the system.

A Cimbria Delta Pre-Cleaner improves the product upon delivery, followed by a Cimbria Delta Super Cleaner for refined cleaning and aspiration. Final visual sorting is performed by the Cimbria SEA Chromex system, followed by Cimbria aspirators prior to bagging on our state of the art packaging system.



Richland Innovative Food Product - North Dakota facilities



SEA Chromex color sorter for final sorting of maize kernells for Preffered Popcorn

Preffered Popcorn: truly the finest popcorn in North America

STATE-OF-THE-ART TECHNOLOGY FOR ARGENTINA

Darin Stutler - darin.stutler@bratney.com

Bratney Companies, Cimbrias partner who covers the market in US and Argentina, provide state-of-the-art Cimbria Heid coating and drying system for Los Prados Semillas Forrajeras located in Firmat in Santa Fe Province – Argentina.

Los Prados is a company with more than half a century of experience of bringing quality forage seeds such as grass, alfalfa, clover and fine seeds to its end users in Argentina, the Americas and Europe.

The Bratney Argentina office of Jorge Garcia, Gustavo Mino and Walter Gomez was contacted to provide a complete system for incrustation of their valuable seeds.

As a cooperative team, a system was designed, engineered and installed to meet the client's end goals for their growing markets. The system consists of a CC150 WG with integrated pumps and loss in weight powder feeder systems.

After the coating process, a Jog Conveyor Dryer JCD 1250 is utilised to dry the product to an acceptable level for storage and bagging. The JCD 1250 provided not only heating and cooling, but also integrated scalping and sifting of the product in a single unit.

The system helped the client continue its growth and provided a great return on investment.



HIGH-END CIMBRIA TECHNOLOGY

Franz Franer - Franz.Franer@agcocorp.com

Remington Seeds is successfully serving some of America's leading retail seed companies by employing over 25 years of seed production and operational expertise.

Remington is 100% focused on seed production, conditioning, packaging and distribution and is not directly involved in hybrid/ varietal research, trait development or engaging in direct sales to farmers. This year Remington Seeds once again expanded its activities in Europe. Cimbria is proud to have won the order to install a multi-seed processing line mainly used for sunflower, including a continuous dryer.

The entire installation contains five main sections: Receiving/ Drying/Pre-cleaning and Fine Cleaning/Calibration:

Receiving/Drying/Pre-cleaning: A Cimbria Pre-cleaner 146 after truck reception achieves 30 t/h sunflower intake capacity and

directly feeds a Cimbria Continuous Dryer ALG 12. The dryer, which has indirect gas heating, reaches a capacity of 25t/12h sunflower seed drying with moisture reduction from 13.5% to 7.5%. As the plant can be used individually for different products such as maize seed, the Cimbria pre-cleaning section is also connected to the existing maize shelling machine by a conveyor belt.

Fine Cleaning/Calibration: fine cleaning of sunflower Cimbria Delta Super air-lifting unit fine cleaned and 10

Traditional and well-proven, seed is executed by the Fine Cleaner, with the ensuring 5 t/h perfectly sunflower seeds t/h corn seed. The Cimbria Delta Grader



Colour sorting



splits the seeds into two sizes. Finally, two Cimbria Cylindrical Cleaner Batteries split the seed into up to 4 fractions, which are then intermediately stored in octabins and can subsequently be filled into the section with Cimbria Gravity Separators (currently two of the type GA 210, each with 2.5 t/h performance on sunflower seeds). Last, but not least, a Cimbria Chromex 7 chute color sorter performs the optical finishing on 5 t/h sunflower seeds before the seed enters the final stage, namely the Cimbria CentriCoater in connection with the Cimbria Jog Conveyor Dryer Any of the machines can be fed independently from the octabins, thus providing plenty of flexibility in the process.





Seed processing line with indent cylinder and Delta Cleaner for fine cleaning and calibration

PITURA SEEDS AT DOMAIN, CANADA

Mark Metcalfe - mmetcalfe@nexeed.ca

2018 has been a busy year at Cimbria dealer Nexeed, seeing a variety of different projects being implemented, including several new seed cleaning plants. One new facility of note is at Pitura Seeds at Domain, Canada.

Pitura Seeds has a history spanning almost 100 years and 4 generations, with field crop farming having commenced in 1921. A generation later, in 1965, the business expanded to include grain and seed cleaning and pedigreed seed production. Since then, this combination has been the basis of the business, with both the farm and seed processing sides of the business expanding over time, and a third and fourth generation becoming involved, as is the case today.

Pitura Seeds has been a customer of Cimbria since acquiring its first Delta cleaner from Cimbria Canada (Nexeed) in 1998. Since then, several plant changes have led to additional Cimbria machines in the plant, and a growing relationship with Nexeed for advice, support and equipment supply. In 2016, when the current management, including Calvin Pitura & Tom Greaves, were contemplating the construction of a new plant, Nexeed was honoured to have the opportunity to participate in the discussion. Since then, Pitura Seed and Nexeed, along with other specialists, have collaborated on conceptual design, detailed design, delivery and construction of the new facility. Tom Greaves, President of Pitura Seeds, cites the quality of the product and the service provided by Nexeed as the reasons for choosing this supplier. This new plant will be the largest family-owned, pedigreed seed processing operation in Western Canada. Soybeans, wheat,

barley, oats, flax (linseed) and peas will all be cleaned in the first year of processing; flexibility is designed into the system to accommodate other commodities as markets may demand. Planned nominal capacity is 24 TPH (wheat), resulting in more than a doubling of the company's previous cleaning capacity. This will be accomplished with a Cimbria pre-cleaner aspirator, a Cimbria Delta 184 De-awner, two Cimbria Delta Super Cleaners, Cimbria Heid Indented Cylinders, two Cimbria Heid Gravity Separators, all leading to a state-of-the-art Cimbria SEA Chromex 7 Optical sorter. Cimbria Bucket Elevators also provide the means to convey product from one machine to the next through the facility. Nexeed took direct responsibility for process flow, equipment recommendation & supply, as well as detailed design of the seed plant, including delivery and installation of the equipment stands, operator and operator platforms - i.e. virtually everything in the photos.







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THIS NEW PITURA SEEDS PLANT AT DOMAIN, WILL BE THE LARGEST FAMILY OWNED PEDIGREED SEED PROCESSING OPERATION IN WESTERN CANADA

IN-HOUSE COMPETENCES



Lars Nørgaard - Lars.Noergaard@agcocorp.com

After more than 70 years in the business, it is remarkable that there are almost no two Cimbria plants that are 100 % alike – but what they do have in common is that they meet the individual requirements that our customers may have. This does not mean that each machine is specially developed every time, however. An obvious comparison could be that of LEGO toys, which are recognised all over the world. A large number of different standard components can be combined and put together in countless ways to form a functional whole. And it is the same with a Cimbria plant.

Based on the industry's biggest and broadest product range, the optimum, customised solution is developed in close collaboration between us and our customers. Indeed, if there is one particular area in which we really stand firm, then it is full flexibility. As a member of the AGCO group, Cimbria is part of the world's leading agroindustrial company, boasting brands such as Fendt, Massey Ferguson, Valmet and GSI.

GSI operates in several areas with equipment and complete plants for poultry, pig-breeding and grain storage, as well as being the world's biggest producer of round steel silos. These are now incorporated as an integral part of Cimbria's product range, with the complete product range reflecting its role as global leader. Developed and optimised over decades by the industry's most experienced experts, the complete range covers everything all the way from individual machines to finished plants, including automation, project management, installation, supervision and training, not forgetting subsequent service and continuous optimisation of the plant. Cimbria and GSI make up the world's largest supplier of equipment, complete solutions and technologies to the









industrial grain and seed business. Production of equipment takes place at more than 20 locations all over the world. This entails a sales and service presence that has global reach and enables comprehensive professional insight into the local requirements that are applicable in each individual market. One of the latest in the line of production locations is found in Biatorbagy, an industrial estate outside Budapest in Hungary. In 2014 the first part of the factory was opened, before being extended in 2017 so that it now covers more than 25,000 m². It is at this facility that silos for the markets in Europe, the Middle East and Africa are now produced.

THE OWNER WHEN

Along with a conscious choice of leading sub-suppliers of, for example, steel and bolts, a new and high-tech production facility ensures the highest quality and uniformity in the physical product. However, when it comes to a product such as silos, correct design and configuration are just as important. Local conditions have to be taken into account, whether this involves the impact of wind, snow, earthquakes or similar. Such calculations are extremely complex – and at GSI are performed in a uniquely developed software application called HiStruct.

HiStruct performs complete optimisation, calculation and design of each individual silo and steel structure and automatically prepares configuration and production drawings, calculation reports, material lists, FEM analyses, as well as generating the 3D models that are used in complete layout drawings.

With the use of the latest technologies and production equipment at all locations, Cimbria and GSI will continue to be well equipped in the future to deliver high-quality products to our global customers.



HiStruct creates fully detailed 3D model, which can be used for the generation of scaled drawings.

It is a full process tool, which can be used from customer request until production, as it can be connected to ERP systems' database.

CIMBRIA/GSI SILO PLANT FOR BIOLOGICAL PRODUCTS



Andreas Fröhlich - Andreas.Froehlich@agcocorp.com

Saatbau Erntegut, a branch of Saatbau Linz, is one of the major operators in the Austrian grain business, with growing focus on organically farmed crops. The rising demand for organic food encouraged Saatbau Erntegut to invest in a new, powerful reception and storage facility in the eastern part of Austria – more specifically in the Pannonian Basin, one of the major growing areas for cereals, sunflower and maize.

The intake section of the plant consists of two parallel reception lines, each with an L-shaped intake pit for side-tipping and backtipping trucks, as well as a pre-cleaning unit for each line. One Delta 157 and one conical air sifter have been installed in the pre-cleaning tower. Subsequently, the product is conveyed to GSI silos by Cimbria Chain Conveyors and Bucket Elevators at an hourly capacity of 120 t/h per line. Within the silo section, which has a total holding capacity of 15,000 t, there are 4 major silo blocks with the following configuration:

- 5 round hopper silos with a holding capacity of 375 t each, mainly used as wet cells prior to drying
- 20 round hopper silos of 615 t each, used as main storage bins
- 1 round hopper silo for 520 t, used as a day bin prior to load-out
- 6 square silos of 65 t each, mainly used as load-out bins for the bulk loading unit

The drying section consists of a Cimbria ALG 18 Continuous Flow Dryer for indirect heating with gas, drying 45 t/h wheat from 19% to 15%, and 15 t/h wet maize from 25% to 14%.







Shortly after commissioning, the customer confirmed that the plant has already been accepted – and indeed preferred – by surrounding farmers due to the fact that it has an extremely high reception capacity, thus avoiding waiting times for the farmers during the stressful harvesting period.

With a location just 20 minutes from Vienna's international airport, we hope to have a lot of guests from all around the world come to visit this plant in the future.

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EXTENSION OF FACILITY AT BUSTOLPI, ICELAND



Willy Jensen - Willy.Jensen@agcocorp.com

The project began in March 2016, when we visited the customer in order to clarify and review wishes and requirements concerning their proposed extension.

After the first meeting we drew up a proposal for a new finished product silo installation and conveying system from the harbour to a number of new grain silos which were also part of the proposed investment.

After a couple of rounds of negotiations, we arrived at a solution, and at the end of March 2017 the final contract was signed. Construction of the installation is now complete and the facility is in operation.

The facility consists of a finished product silo installation with 10 cells with a combined capacity of approx. 500 m³, whereby

trucks can be loaded with finished feed by driving under the silos. The conveying system from the ship intake to the new grain silos is a 100 TPH conveying system, in which a drum cleaner, magnet and scales are installed in order to remove as many foreign bodies in the product as possible and to weigh the quantity coming into the plant.

The 8 hopper silos have a total capacity of 3,664 m³ and are equipped with 100 TPH conveying equipment and Unitest temperature measurement, whilst the transport connection to the factory has a capacity of 30 tonnes per hour.

Cimbria has been responsible for supervision throughout the erection process.









ACID-TREATMENT SCREW CONVEYOR

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Felleskjøpet Rogaland Agder is a cooperative that has been a Cimbria customer for several years, having purchased both stand-alone machines and plant equipment.

In 2010, Felleskjøpet Rogaland Agder purchased a screw conveyor for the transport / acid treatment of grain. The screw conveyor was an SU500 with a length of 12 m and represented an integral part of the increase in capacity of the firm's grain reception facility. Trough, cover and endplates were painted, whilst the inner screw and screw thread were produced in stainless steel AISI 304. In 2016 an investment was made in the modification of the reception and cleaning section, which involved a variety of equipment from Cimbria, including an acid-treatment screw conveyor of type SU500 with a length of 12 m and with all components coming into contact with the product manufactured in stainless steel AISI 304.

Due to great satisfaction with previous deliveries and solutions, in early summer 2018 the customer therefore decided to invest in yet another screw conveyor for the transport and acidtreatment of grain and flour products. This time a type SU700 with a length of 17 m was installed in order to meet capacity requirements. As with the screw conveyor delivered to the customer in 2016, all components coming into contact with the product are manufactured in stainless steel AISI 304. The screw conveyor is constructed with holes for nozzles for injection of acid. Furthermore, "scoops" are welded onto the inner screw in order to ensure good treatment of the product. Perspex is fitted at three points on the cover of the screw conveyor, in addition to cable trays along the entire length of the screw conveyor.

The screw conveyor is integrated into the ship reception section and is designed to primarily treat potentially problematic products that are imported for the production of animal feed.





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CIM-SAFE – A STEP CHANGE IN FIRE SAFETY

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DLG is a cooperative society owned by Danish farmers and with a history that goes back almost 120 years. Today, DLG is one of Europe's biggest agricultural companies and is represented in 18 countries. Constant focus on growth and optimisation are two of the cornerstones of the company's history.

In June 2018, Cimbria's After-Sales and Service Department completed the first of several projects together with DLG in Denmark. In recent years, there have been three fires in DLG's dryers, despite the fact that they had installed CW-4 cables for fire detection in these dryers. Cimbria therefore drew up a proposal for a safety upgrade of DLG's dryers – initially for 24 of their dryers at different locations throughout Denmark.

Cimbria won the order with its CIM-Safe solution, as it could be documented that CIM-Safe has already been thoroughly tested and on several occasions has hindered fires by detecting the glow from embers before a potential fire could develop. This limits damage and keeps downtime to a minimum. CIM-Safe is compatible with old control units as long as they have a fire safety system. The solution is quick to install – around 12 hours on a standard plant – maintenance costs are low on the system and it is easy for the user to operate.

The contract for delivery was signed on 1 May 2018.

The CIM-Safe solutions on the 24 plants were all installed during the period 15 May – 15 June, i.e. in just 30 days, which – as DLG has subsequently declared – is in itself an impressive feat!

On 19 June an introduction and training day in the use of CIM-Safe was held for DLG's operators in order to ensure that everyone was familiar with its use.

DLG has since reported that two of the CIM-Safe systems they bought have already – i.e. within less than 4 months – proved their worth, as two fires have been discovered and prevented. From detection of the spark until the plant was up and running again, only 20 minutes went by!

CIM-SAFE - FUNCTIONALITY AND FEATURES

In the grain processing industry, and particularly in the drying of grain, there is always a potential risk that sparks can occur, and it is therefore necessary to implement different solutions to minimise the risk of serious damage to equipment. The solution that Cimbria has used in our grain dryers during the last 30 years is the well-known CW-4 overheating alarm - a system which via heat-sensitive cables registers temperature increases, sends an alarm to the operator and cuts out the dryer – and therefore prevents the fire from spreading. As the market has developed in the direction of fewer, but bigger, processing plants in which efficiency and reliability are key factors in terms of maintaining productivity and profitability, it has been even more important to focus on safety equipment that ensures the safe operation of plants and detects sparks and embers as quickly as possible. At the same time, legislative requirements such as OSHA in North America and ATEX in Europe have forced the industry both suppliers of equipment and processing companies - to reconsider and enhance plant design. In order to comply with legislation and safeguard processing equipment, Cimbria has recently introduced the new infrared spark detection system: CIM-Safe.

CIM-Safe has already been implemented as a new safety device on our dryers, primarily because the system has the following advantages:

- Faster reaction in relation to cable solution
- Adjustment is not necessary, i.e. the system is always engaged, regardless of whether products are being processed
- Easy installation with highly sensitive infrared sensors

CIM-Safe can easily be integrated into equipment and connected to the local control panel, which activates an acoustic alarm and flashes on detection. For further safety, yet another alarm is triggered if a major event occurs. The latter alarm can be configured by the user and used for automatic cut-out. CIM-Safe can also be equipped with an automatic water-based high-pressure system which acts as an effective water barrier to extinguish sparks in the event of installation in closed spaces. In other words, in all areas in which there is a potential risk of explosion, CIM-Safe can be considered as a means of minimising expensive damage to equipment and – perhaps even more important – subsequent losses due to production shutdown.

SAFEGUARD YOUR PRODUCTIVITY - DETECT SPARKS AND EMBERS IN TIME!

SPARK DETECTOR

The highly sensitive detector sensing infrared light is able to detect even through dense phase material and is fitted in areas where no daylight or other light is present. An air cleaning nozzle will be supplied when the sensor is placed in a humid environment. CIM-Safe can be further equipped with an Automatic High Pressure Water Extinguishing System to provide an effective water barrier for extinguishing sparks when installed in confined space.





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CONTROL UNIT

The spark detector is connected to a central control unit that monitors the equipment and detects sparks or fire in time, such that it is possible to take action before any further damage occurs.



REMOTE ALARM

The control panel activates an acoustic alarm and flashing warning light upon detection. For added protection, a second alarm is activated upon extended detection. This second alarm can be user adjusted and is used for automated process shutdown. For added safety, a remote alarm to e.g. a mobile phone can be added.



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CLEANING SYSTEM FOR OTTOGI SESAME MILLS



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The Ottogi Corporation was founded as a food specialist enterprise designed to contribute to improving the dietary habits of Koreans by pursuing 'better quality, more nutrition and more advanced foodstuffs'.

Having been contacted by a consultant of Ottogi at a trade fair, we learned that the sesame cleaning system installed at Ottogi Sesame Mills was no longer working to their satisfaction.

The requirement was the 5-6 t/h processing of sesame seeds which would then be used for the production of dark sesame oil, which has a more intense flavour reminiscent of nuts. This dark sesame oil is mainly used to enhance food, but is also an ingredient in Teriyaki Sauce, for example.

As a result, Ottogi Sesame Mills, which is located in Chungcheongbuk-do province in the middle of South Korea, was visited and surveyed in order to come up with a customised proposal that would meet their demands in full. This fact-finding mission was crowned by a successful conclusion of the contract.

The technical solution for this requirement comprises a Super Fine Cleaner Delta 106 to guarantee high-quality results due to its remarkable after-suction aspiration. Gravity separation is mastered by a GA 210 and the remaining stones are removed by a dry stoner TS 360 S. These machines have proved their efficiency in Ethiopian sesame processing plants with great success, easily achieving the claimed purity of more than 99.999 %.

In order to also be able to handle perilla, known as 'wild sesame', 2 silos and some conveying equipment have been integrated into the plant to store and handle roasted perilla seeds for later oil prodatuction. Incidentally, this perilla oil is known as 'egoma oil' in Asia.

It is definitely worthy of mention that Ottogi has also decided to carry out black pepper processing with Cimbria equipment. Besides the aforementioned Super Fine Cleaner Delta 106, an HSR 16010 indented cylinder has been selected for this application, with stone separation performed by a smaller TS 180 S. Conveying is effected by PBE 10 pendulum bucket elevators to treat peppercorns, which were a luxury item in the Middle Ages, with the utmost care.



GSI/CIMBRIA PROJECT FOR "AMYLCO", RUSSIA

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Cimbria and GSI are the perfect match and one of the reasons why in July 2018 we signed a contract with Amylco LLC for a complete silo installation, which is now under construction in Millerovo, Rostov Region.

Amylco LLC is the second largest producer of starch products in Russia, and the new silo acts as a storage facility for their deep refining plant (expected capacity of corn in 2018 220,000 T to be increased to 250,000 T in 2019).

The project includes 10 GSI flat bottom silos each holding 7,000 m³. The silos are equipped with aeration system, sweep augers and Cimbria Unitest System for monitoring the seed during storage.

Before the grain finds its way to the storage silos, scalping (rough pre-cleaning), drying and cleaning/grading can be carried out.

This will take place on a Cimbria Drum Scalper and a Cimbria EcoMaster Dryer. For the dryer, 2 GSI wet bins are included. The plant also includes a 250 TPH cleaning/grading section for removing kernels smaller than 5 mm and for grading the product bigger than 5 mm into two fractions. This will take place on six Delta screen cleaners placed 3 + 3 and working in parallel.

The plant will be "linked" by Cimbria chain conveyors, belt conveyors, bucket elevators and Q-piping – in different sizes and capacities from 80 TPH to 250 TPH.

The complete facility can be operated from a Cimbria PLC and PC control and automation system.

The scope of works also includes design and project engineering of mechanical and electrical works, as well as supervision of installation. Test & commissioning and training of personnel are scheduled for the end of August 2019.





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It's 7 a.m. - it's my moment of pleasure. Just like I do every day, I'm enjoying my first coffee of the day at home.

The aroma pervades the room and I realise it's the best reason for me to get out of bed in the morning!

I look at its colour: it's perfect, and while I wait a few seconds for it to cool, I suddenly start thinking about where this blend comes from and how long it took to get all the way to my cup.

I think of the endless plantations visited during my business activities and how it would be nice to understand the real origin of this amazing taste: Brazil, Ethiopia, Kenya, Colombia, Vietnam, Indonesia... who knows!

One day I met a man and discovered that in Colombia the "catadores de café" are coffee specialists who can recognise the coffee variety and origin just by tasting it.

If at this moment someone was listening to my thoughts, perhaps they'd think it doesn't matter what the country of origin is; after all, it's a cup of coffee.

We all know that coffee is prepared in different ways all over the world. In the US it's served in large cups to enjoy everywhere, while in Italy we're coffee masters and our Espresso is a global symbol of the Italian lifestyle.

But then I think ... how many people know what's behind a cup of coffee?

Cimbria is known worldwide as a leading manufacturer of

equipment for raw and roasted coffee processing to ensure the highest quality standards.

Cimbria offers its in-depth knowledge and expertise in processing technology and plant design to guarantee that plants and equipment reflect state-of-the-art technology, efficiency and performance.

I taste my coffee and think: was it treated by Cimbria machines? Was it properly purged of all the contaminants that can affect its taste and quality?

My first consideration: if the beans used for this coffee have not undergone a proper cleaning process to eliminate the "heavy" contaminants like stones, they certainly wouldn't have finished in their beautiful packaging. Stones and other foreign bodies in coffee may arise from the harvesting phase or from an inefficient mechanical process. A Cimbria destoner has certainly been used to remove stones from the coffee beans used to create my coffee! Another sip. The taste is so good. This indicates that sick and defective grains have been carefully removed during the cleaning process.

I've been working in this field for a long time and have learned that if a top-quality coffee bean is subject to too much water, it might appear to be a good bean, but its taste will be terrible!

I immediately feel proud that Cimbria has developed the best Full-Colour optical sorters to separate diseased and mouldy grains.

But what are the main defects in coffee beans? Well, there are so many, and almost all of them are difficult to separate by means of





According to the latest report of the ICO (International Coffee Organization), this year 159,66 million bags of green coffee, equal to 9,58 million tons, were harvested in the countries embracing the equator. The increase is 1,2% in comparison with 2016/17. A mountain of wonderful coffee is carefully cultivated, then transferred to the processing centers that today, unlike in the past, are located in the countries of origin. After the extraction from the cherries the coffee beans undergo an extensive cleaning process.

a gift from a friend, a coffee expert who chose to collaborate with Cimbria and to import our Full-Colour sorters in Colombia. During 16 months of cooperation we've installed 15 machines to the full satisfaction of our customers, who are known to be the most demanding in the world.

But Colombia is only one of the countries that have recognised our optical sorters as the best performers in the market. In Ethiopia, Italy, Kenya, USA, Honduras, etc., many customers trust in our technology to sort any kind of defect that, even without altering the taste, would have a negative impact on its quality and selling price. Fortunately, any kind of contaminant or diseased grain can be detected with our optical sorting machines. Again, I feel proud and confident: I'm not just working for a beautiful company that's a leader in this field, but our technological developments allow me to enjoy my coffee and be cofident about its health and quality. I close my eyes. I enjoy my last sip of coffee and... I hurry to my office, happy to help the world know of our excellence and the importance of Cimbria's technological contribution in this field!



The so-called "pergamino" can be totally or partially covered by the dry endocarp, possibly due to a defective hulling process. Then we have immature grains, which have a greenish/grey wrinkled surface. Or "quakers", which are immature light green/yellowish grains that are difficult to distinguish to the naked eye. Then there are shrivelled beans, with a wrinkled reddish/brownish surface, which don't improve the taste of our coffee.

Could you even imagine what your reaction would be if you found some dark and wrinkled beans in your packet of coffee? Some grains might be completely black; others may have a greyish or brownish shade. The cause may be beans that are picked too late or overripe cherries picked from the ground.

No, no, these defects can't be in my coffee!!

Even the malformed grains, which have a growth defect, would disturb my sight. Of course, I would feel the same if I found wooden sticks and nut fragments, which can only be removed using Cimbria electronic sorting technology.

Today, all over the world the optical sorting process is absolutely necessary for both Arabica and Robusta varieties.

Actually, only Cimbria electronic sorting machines can separate the defects which are almost imperceptible to the human eye. I immediately think of the "acerados", the invisible enemies of a good aroma, or of all the other defects that can be separated only with the most sophisticated version of the SEA CHROMEX.

My coffee is now warm and has an excellent taste. I realise it was



NEWS FROM THE CENTRICOATER DEPARTMENT

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Jog conveyor dryer JCD 1800

Under the slogan "Bigger is better", we will be delivering our first big Jog Conveyor Dryer JCD 1800 in December 2018. The installation of this JCD will take place in the Hyderabat region in India and will mainly be used for maize and a small amount of paddy rice and millet.

In terms of size, the JCD 1800 will be 1.8 times that of its little brother, the JCD 1250, and therefore matches the capacity of a Centricoater CC250 (depending on drying conditions and treating recipe). The design is now fully modular, such that up to a total of 10 sections can be built together.

The JCD 1800 has several modifications and improvements

compared to the JCD 625/1250, such as modified inlet gate, outlet hopper, screen fixation, etc.

Inclination adjustment from -2 to +2° is included in the standard machine and, due to the size and weight, electrical adjustment of the inclination on the JCD 1800 is possible during operation. Ease of maintenance and service was yet another important design feature of the new JCD 1800 jog conveyor dryer.



Figure 1 - xxx

NEWS FROM THE CENTRICOATER DEPARTMENT

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CentriCoater drum cleaning automation

Cimbria cleaning technology that uses an automated cleaning process to flush the CENTRICOATER coating drum was successfully installed in a CC250 at Saatbau in Geinberg, Austria. Their operators are now using this feature during the operating season in order to share their day-to-day experience. The client's expectations include safety improvements for the operators by minimising contact with toxic chemicals, further saving of labour costs due to no longer needing to perform periodic manual cleaning of the drum (e.g. in the event of changing recipe or seed variety) and, finally, optimising the consumption of water for washing.

BaySTEP installed in a CC50

BaySTEP was recently installed in a CC50 in Slovenia, as a tool to enable operators to always discharge the coated seed at the right time with the right moisture content, thus reducing contamination of the downstream equipment with chemicals and minimising dust emissions released by the coated seed on the way to the bagging line. In this way, the complete installation will run using the coating slurry in the expected and most efficient way – staying on the seed to protect it!





Filling of the mixing chamber

Mixing phase

CIMBRIA, GSI & MOLLERUP MOELLE

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Cimbria has many very loyal customers, including Mollerup Moelle, a mill providing a broad varity of quality feed for horses, cattle, pigs and pets. The mill is based on the island of Mors, around 30 km from Cimbria's headquarters in Thisted.

For the 2018 harvest Cimbria delivered the first Cimbria / GSI silo facility to Mollerup Moelle to be used for the storage and transport of grain.

The order consisted of:

- 2 x Ø32 m GSI silos with a capacity of 2 x 17,000 m³ = approx. 2 x 13,000 tonnes
- Conveying equipment to and from the existing plant
- Steel tower and walkways
- Extension with two 540-tonne wet silos

Cimbria won the order due to a long-standing, excellent relationship based on trust and partnership between customer and supplier, as well as great satisfaction with equipment and solutions that have been delivered over the years – and, of course, a competitive price.

The relationship between Cimbria and Mollerup Moelle goes back a long way, but was upped a notch in 2012 when Cimbria delivered a 200 t/h intake with Delta cleaner, 100 t/h dryer and wet silos. Since 2012, Cimbria has delivered several other solutions, including conveying equipment for warehouses, filter systems and SEA colour sorter.

Mollerup Moelle is familiar to several of Cimbria's customers, as its location nearby Cimbria's headquarters and the close contact between Cimbria and Mollerup Moelle has meant that Mollerup Moelle is often used as a reference plant for Cimbria.





MOLLERUP MOELLE IS LOCATED IN THE MIDDLE OF THE BEAUTIFUL DANISH ISLAND MORS SURROUNDED BY BLUE SKY, GREEN FIELDS AND OPEN SPACES



UKRAINE BUSINESS



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NIBULON's branch in Kremenchuk:

WHAT MATTERS IS HOW MUCH THERE IS IN THE GRANARY... ...not in the field. This truth about yield is well known to every grain producer. That is why new silos with modern technological equipment are appearing all over Ukraine.

An example is Nibulon – our well-established key account, which is one of the biggest operators on the Ukrainian grain market. This year NIBULON's branch in Kremenchuk (Poltava region) has extended its existing grain storage capacity by an additional 20,000 tonnes to store grain, leguminous seeds and oilseeds. The history of this project dates back to 2010 when the first stage of the Kremenchuk storage facility was launched as part of Nibulon's huge and ambitious investment project supported by EBRD and aimed at the renewal of navigation along the rivers of Ukraine. Cimbria was a supplier of equipment to all 18 sites in this investment project.

In 2018, Cimbria extended the Kremenchuk facility with chain conveyors and bucket elevators for 20,000 tonnes of additional storage. At the same time, capacity was increased from 250 to 500 tonnes per hour.

We are proud to say that reliable Cimbria equipment is an essential part of the resounding success of Nibulon and an integral component of the company's leading position on the Ukrainian grain market. This year we can again congratulate Nibulon on the results it has achieved: 4.1 million tonnes of exported grain for the 2017/2018 marketing year, including approx. 2.5 million tonnes of grain which was transported via inland waterways.

HarvEast:

PLACING ITS TRUST IN NEW CIMBRIA INSTALLATION

In October 2018, Cimbria handed over a new seed plant to HarvEast in the Donetsk region. The negotiations on this project started late in 2015 and were initially limited to a Centricoater CC-150. In the end, however, our negotiations resulted in a complete plant instead of a single machine. This was a brave decision by HarvEast's management because the fixed assets of the company are situated very close to the area of conflict. Indeed, as a result of the conflict in 2014, the company lost a considerable part of its land-bank and even one brand new seed plant built by Cimbria in 2013. Despite all these difficulties, HarvEast has been doggedly developing its own seed farming in cooperation with leading seed-producers such as Maisadour, Euralis Semences, DuPont Pioneer and Alta Seeds.

The complete, up-to-date seed plant supplied and commissioned by Cimbria this year includes: De-Awner D184, Fine Cleaner D106, Delta Grader D127, Indented Cylinder, fully enclosed, HSR12020, Gravity Separator GA210, Cimbria Heid De-Stoner TS180, Seed treater Centricoater CC 50, as well as conveying equipment consisting of Pendulum Bucket Elevators for soft transport of seeds, chain and belt conveyors and bucket elevators.

We wish our customer further success in seed farming and are absolutely confident that seeds processed at the new Cimbria plant will match the world's highest standards.



CIMBRIA EQUIPMENT IS AN ESSENTIAL PART OF THE RESOUNDING SUCCESS OF NIBULON'S LEADING POSITION ON THE UKRAINIAN GRAIN MARKET

XIN

NEW DESIGN FOR CONTEC SCREW CONVEYORS

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For many years, Cimbria has produced and sold a vast number of screw conveyors as part of its "Contec" brand. The standard screw conveyors have ranged from 150-500 mm in size, whilst the range has been supplemented by a large number of special screw conveyors, both trough and tubular screw conveyors.

As the market demand for higher capacities within bulk conveying has increased during the last 5-10 years, in 2014 it was decided to extend the standard range of screw conveyors with a number of larger models. At the same time, this presented an opportunity to redesign the screw conveyors, as the existing design dated back to the 1990s. It was decided to extend the range with types SU/SUH 600-700-800 and SO/SOH 600-700-800.

The design of these larger models is different to the smaller standard screw conveyors. In general, there are fewer welded joints, with more parts being bolted together. The new design is based on a modular concept to an even greater extent, with the individual modules – inlet, outlet, inspection hatch, etc. – being able to be combined to make a complete screw conveyor as a customised solution adapted to the application in question. Furthermore, the new design improves the functionality of the screw conveyor, e.g. in terms of its ability to "run empty" when no product is fed into the screw conveyor.

Based on very good experience with these larger screw conveyors, in 2016 it was decided to incorporate the smaller screw conveyors (from 150-500 mm) into this redesign programme. The new design offers several advantages: not only in the manufacturing process, but also in terms of benefits to the users of the screw conveyors.

The new design offers features such as:

- Better functionality
- Full flexibility in location of inlets and outlets
- Food safety: The new design is able to run more clean/empty than the present design.
- Prepared for ATEX as standard
- Improved ease of maintenance and repair

In the design and construction of the new models there has also been focus on sustainability, with the manufacture of the new design saving energy due to the reduced need to weld joints.

The redesigned screw conveyors will be phased in during the autumn of 2018, and will fully replace the old design during the course of 2019.

Contec SUH - trough model

BIGGEST COFFEE PLANT – FOR BIGGEST EXPORTER

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Kerchanshe Trading plc, the number one coffee exporter, which provides top-grade Arabica coffee, decided to realise a state-ofthe-art Cimbria Coffee Plant in 2017.

Providing high quality, sun-dried, natural and fully washed Arabica coffee at large quantities and with an input capacity of 10 t/h. Kerchanshe is now operating the biggest capacity processing plants in the Ethiopian market.

Commissioning took place in April 2018, since when the equipment has been operating to the full satisfaction of Kerchanshe Trading plc.

In 2018, Guji Highland Coffee Plantation plc, a family-owned coffee producer of speciality coffee, placed an order for a Cimbria 6 t/h green coffee processing solution. They run their coffee plantation on more than 650 hectares of land, producing up to 385 tonnes of coffee per year.



ISINYA FEEDS LIMITED - KENYA, EAST AFRICA



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Feed mills are manufacturing sites for feed used for animals. The feed that is manufactured in feed mills is usually a compound that is made from various raw materials and a number of additives. Grain is one of the most important commodities used to produce feed in a feed mill, and its availability without any hindrance or delay is of utmost importance.

Control of moisture in raw materials and finished feed is critical for profitability, as well as with respect to nutrition and quality.

Isinya Feeds Limited was established in 1984. Following very humble beginnings with a production capacity of 2000 day-old chicks, it has grown to become one of the country's largest fully integrated poultry companies, with main products including dressed chicken, cut-ups, day-old chicks (broilers and layers), table eggs, hatching eggs, poultry equipment and an animal feed production line.

Based on Cimbria's in-house technology and experience, Isinya Feeds selected and awarded Cimbria (E.A.) the contract to carry out the full design and supply of the grain storage project to enhance safe and controlled storage, sustainability of grain to the feed mill during the part of the year when it is scarce and ease of production management.

The plant is situated approximately 60 km south of Nairobi along the Nairobi–Arusha highway and is expected to be up and running by mid-2019.



EAST AFRICA - SEED PROCESSING



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Seed processing - to ensure better quality and quantity of harvest

The climate has influenced land use in several parts of East Africa. Agriculture has continued to represent a large share of national economies in the region. To ensure a better quality and quantity of the harvest, farmers rely on processed seeds. Over time, this has led to a more vibrant and competitive seed industry, thus leveraging productive value chains and markets that demand high quality seeds.

Most common seed processes in the region include cleaning, gravity separation, seed dressing and bagging/packaging. On a few occasions, there have been requests for de-stoning, grading and colour sorting. These processes help sort out and obtain healthy grains suitable for use as seedlings, eliminate foreign materials and dust, and apply chemicals that control pests during storage and early growth. By so doing, the post-harvested seed is refined to its purest form for replanting.

With an increasing number of seed farmers, there is higher demand for seed processing. This has led to improved capacities at processors like East African Seed, Kenya Seed, AgriSeed Co., Equator Seeds, Pioneer Seeds, etc. East Africa Seed Company (EASeed) has recently acquired 5 t/h seed processing equipment installed in Kampala, Uganda. It includes a Cimbria Delta Cleaner 116, Gravity table, Centricoater and conveying systems. This will help support the supply of vegetable seeds, field crops and forage seeds in Uganda and its nearest neighbours.

With the PLC-controlled Centricoater CC50, EASeed now enjoys an intensive and highly uniform application of seed treatment materials on each kernel of seed. With continuous operation and flexible configuration, the quantity of products and chemicals, as well as mixing time, can be set, hence achieving optimum results for a wide range of applications.

AgriSeed Co., on the other hand, is improving on the preliminary seed preparation process by introducing a Sorting table GPS800, Sheller, Delta Pre-cleaner and chain conveyior lines. With improved capacity, they will be able to supply agricultural seeds more effectively; primarily maize, vegetable and sorghum seeds to the East African region.





EAST AFRICA - AFTERSALES SERVICE



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Aftersales Service – Caring for your 'Motion in Process'

Aftersales service has continued to play a pivotal role in the success of any processing industry. Daily operations rely on smooth and efficient systems whose building blocks are well-maintained machines. From operator training, warranty processing, spare parts provision, maintenance servicing, breakdown repair to consultancy, every plant requires constant and routine care.

Cimbria East Africa, in its provision of aftersales service, appreciates the role of motion in conveying equipment and this forms a very important part of routine care. 'Motion in Process' entails systems that help convey products from one point to another. No process is devoid of motion, and motion has both positive and negative effects. Friction comes into play as both beneficial and harmful; hence it is essential to identify where to eliminate it by lubricating and where to assist it by adding friction promoters such as rubber, plastic liners, etc.

As a benefit...

Friction is applied in conveyor drive rollers to avoid slip. Belt slip leads to wear on the inner surface of the belt, eventually causing it to fail. To avoid this, belts (elevator, conveyor, V-belts, etc) should be tightened correctly to improve grip. Care should be taken to avoid overtightening, however. This increases not only load on the motors, but also strain on the belts.

On the other hand...

With continuous conveying of grains within the ducts, these ducts wear out depending on the nature of the grain. To avoid replacing entire pipes, wear liners are installed on the pipes and replaced when they get worn out. This is effective in terms of time, labour and costs. Bearings are also fitted where there is contact between moving and fixed parts. Correct maintenance should be carried out on these bearings to ensure extended bearing service life. This includes correct installation, alignment, lubrication and constant inspection.

Meeting the objective

Cimbria's aftersales department therefore endeavours to help our customers reduce machine downtime, minimise unplanned maintenance activities and optimise plant operations for quality output. By so doing, customers improve their productivity and maximise their profits.

This year, Cimbria East Africa has signed maintenance contracts with companies such as Louis Dreyfus, Bayer East Africa, Equatorial Nut Processors, Africa Improved Foods and Ankole Coffee Producers Cooperative Union. This will ensure better and specialised service delivery for these companies, thus meeting objectives for both Cimbria and its partners.



NEW SEED PROJECTS IN RUSSIA



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Agrosila, Republic of Tatarstan – new colour sorter

In 2012 Cimbria built a huge seed processing complex, including two 20 TPH seed lines, for the Russian company Agrosila, which is located in the Republic of Tatarstan. Agrosila processes a vast variety of seeds on their plant, such as wheat, barley, lupine, camelina, rapeseed, mustard seeds, etc.

Agrosila contacted us as they had a challenge concerning barley in wheat – and vice versa. This was the starting point for discussions involving adding a colour sorter to the seed line. Different proposals as to how to place and connect a colour sorter on their existing line were discussed and a number of tests of different seeds were carried out at the Cimbria test centre / laboratory in Italy.

We ended up with the supply and incorporation of a SEA Chromex 7 TN+TR full-colour sorter.

SEA CHROMEX is the most sophisticated sorter available on the market. It is equipped with InGaAs cameras that separate barley from wheat and vice versa, plus NIR cameras that remove the remaining foreign bodies (sticks, stones) and "the shape & size" software integrated into the system.

Sporos, Khabarovsk Krai (Far East Russia) – soya bean seed project

In the Bikinsky district of the Khabarovsk Territory, the company Sporos began construction of a plant for the production of elite soybean seeds. For this project, Cimbria is supplying the intake, pre-cleaning and drying sections, as well as a complete seed line.

The intake, pre-cleaning and drying sections, including a Delta 145 Pre-cleaner and a Continuous Flow Dryer, were installed late this summer / beginning of autumn.

The 12 TPH soya bean seed processing line consists of a Delta Fine Cleaner, Delta Grader for grading into two qualities, Gravity Separator, De-Stoner, SEA True 5 Colour Sorter, CentriCoater, Jog Conveyor Dryer, and Pendulum Bucket Elevators for gentle handling of seed, as well as dust aspiration systems with filters for recirculating the air into the process building. The complete facility can be operated from a Cimbria PLC and PC control and automation system.

Our scope of works also includes design and project engineering of mechanical and electrical works, as well as supervision of installation.

The seed line is scheduled for be commissioning during spring 2019.



Agrosila includes the latest color sorting technology by implementing a Cimbria SEA Chromex 7 full-color sorter

Total overview of the Sporos soya bean seed processing plant

Sporos, Far East Russia Cimbria soya bean seed project installation in progress 2/15

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New Seed Plant for Alexander Harley Seeds

Alexander Harley Seeds (Milnathort) Ltd is a company located in the centre of Scotland, specialising in the production of high quality cereal seeds.

Alexander Harley Seeds needed to replace one of their existing seed lines. The timing wasn't ideally suited to the seed processing calendar, but meetings took place to discuss the new plant. The request was simple: to have a 20 tph cleaning line up and running as soon as possible. Working in conjunction with Edwards Engineering, we secured an order and the old seed line was replaced with a 20 tph line which included a Delta 108 Cleaner with a De-Awner mounted on top and Indented Cylinders. A Delta Rotocleaner was also supplied and installed at the main grain intake.

The plant is now commissioned and we will be carrying out a full operator and maintenance training session with the client in the New Year.

New "On Farm" Drying Plant for L Dick & Sons

We received a phone call from Mr Dick informing us that he was in need of a new grain drying plant to service their own needs, as well as having the capacity to handle customers on a contracting basis. They had been advised by a friend who was also one of our existing customers that "Cimbria are worth looking at as they manufacture quality dryers". We met on site and discussed all of the options. After amending the drawings a couple of times, between us all we decided on the best position for the new plant.

After visiting one of our reference plants to show the quality of our equipment and talking to the users, we very quickly became the preferred supplier and in fact received the order later the same day.

Together with Edwards Engineering of Perth, we supplied an AMG14 Continuous flow Dryer, Aspirator, Delta Cleaner and all of the associated conveying equipment.

CIM-Safe sparks new ideas

Bairds Malt has been using Cimbria AG dryers on sites in the UK for over 30 years. Recently the dryers have been updated to the new CIM-Safe spark detection technology to improve fire safety. In 2017, Bairds enquired if we would be able to use this technology on their malt roasters. Roasting malt requires drying temperatures of up to 450°C, so sparks can be generated in suboptimal conditions.

The issue is how to deal with sparks if they are produced.

The CIM-Safe 'R' uses special infrared sensors to cope with the high temperatures, monitoring the sparks at several key positions on the roaster and the ventilation system.

To maintain an uninterrupted process, a water quench system is used to extinguish sparks before they settle in the dusty



Cimbria silos and handling equipment at Crisp Malting

Seed cleaning line at Alexander Harley Seeds

environment. Water is delivered to spray nozzles at high pressure close to each detection point using a dedicated water pump unit. All this is controlled from the same controller as used by the dryer. Spark detection data can be monitored and transferred to site PLC systems for safety records and analysis.

Bairds has been pleased with the results of their roaster system and feels more comfortable that the fire risk associated with roasting malt is being more closely controlled by the addition of the CIM-Safe system.

Crisp Malt Expansion

As one of the leading malsters in the UK, Crisp Malting Group undertook a major project in 2017/2018 as part of the development of the Great Ryburgh site to expand into the speciality malt and Craft Beer market. The project was started in January 2017, with commissioning taking place in late 2017 and early 2018. The project was delivered by TH White Projects and consisted of Cimbria silos and handling equipment throughout. The malting's site at Great Ryburgh in Norfolk has been developed over the years and, with space at a premium, the packing facilities were installed in a newly expanded warehouse building, which is separate to the main malt silos. The product supply to the new facility was via 4 long GT400 Belt conveyors



Spark detector

The highly sensitive detector sensing infrared light is able to detect even through dense phase material and is fitted in areas where no daylight or other light is present. An air cleaning nozzle will be supplied when the sensor is placed in a humid environment.

Cimbria AMG14 Continuous flow Dryer in progress at L Dick & Sons

installed on a gantry spanning the yard area, thus ensuring no disruption to site traffic. In addition, a malt intake was also installed to feed a block of 24 profiled silos, each holding 30 tonnes. The new process area is supplied with product using GT400 Belt Conveyors and EC8 Elevators from the Bulk Storage bins to 4 smooth-walled Buffer Bins, which in turn feed a packing line. Crisp Malting Group is a long-standing customer of Cimbria, using much of our equipment on many sites throughout the UK.

TRUE SUPPORT OF STERILE INSECT TECHNIQUE



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There are not many places or occasions where fruit flies are welcome, apart from perhaps in research laboratories.

However, this is not the case in Trok Nong, a small rural town in eastern Thailand, where five million irradiated fruit flies burst out of white boxes every Saturday and race to prevent female flies from laying larvae-filled eggs. Their mission: to protect premium export fruit. Thanks to these male flies produced by the sterile insect technique (SIT), farmers in Chanthaburi province now have a steady supply of fruit for lucrative export markets.

Before using SIT, fruit export was a tough prospect because the international market would not accept any – or very few – fruits if they knew that fruit flies were a problem in the growing area.

This account is about one of the most invasive fruit fly species: the Oriental fruit fly. To this end, IAEA Vienna, a partner of FAO in this SIT programme, approached us with an enquiry with regard to the possibility of a colour sorting system being installed at the fruit fly rearing facility at the Department of Agricultural Extension (DOAE), Thailand, where it would be used to sort fruit fly pupae with different colours (brown/black). Fruit fly pupae are barrelshaped with an approximate length of 4 mm and weight of 9 mg. Sorting performance had to be above 3 million incoming particles per hour (60 litres/hour), with a sorting accuracy exceeding 99 %. Hence, a SEA TRUE 1+1 with 2 RGB Full-Colour SMART cameras and 0.06 mm optical resolution has been offered. At the same time, the customer had been asked to provide samples for testing, since production capacity is closely connected to the characteristics of the in-feed product and its contamination rate. Performance of the colour sorter lived up to IAEA's expectations in full. The females were separated and the males were treated with care to allow irradiation of the pupae to produce an army of infertile male flies to mate with the wild females in nature.

The result is that no new offspring are produced. Over time, this will bring down the insect population, and in some cases eradicate the population in its entirety. SIT is among the most environmentally-friendly control tactics available.

In short: sterile flies have increased the export of eco-friendly and high-quality fruit from 500 tonnes to 4,000 tonnes a year.

From now on, SEA TRUE 1+1 will support this sterile insect programme, whilst at the same time contributing to ecological and environmental improvements.

TRUE COLOR-CONTROL OF INDONISIAN SWEET CORN

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Guntur, Medchal, Mulugu – these are the places more or less around Hyderabad where our Cimbria Seed Processing Plants are located, mainly for paddy and maize.

Hyderabad is the capital of Telangana, a federal state of India founded in 2014, and is the fourth largest city in the country. Before becoming part of Telangana, this area belonged to Andra Pradesh.

Business with Prasad Seeds started in 2005 – and both hands are now required to count the number of aforementioned plants. Having visited us in June, confidence in Cimbria's performance was underlined by the award of an order for a Sweet Corn Processing Line in Indonesia with an intake capacity of 5 t/h in November 2017. As a result of stricter quality standards and demands, a colour sorter was required in order to satisfy the ever-increasing expectations of the seed industry, in this case for their partner ADVANTA Seeds, a major player in the crop business. With the cleanest quality becoming a major requirement, the modest yet inexorable trend towards colour sorting can be clearly seen when monitoring the market over time. We very much welcome this development, as it means that colour sorters may well become standard equipment in seed processing lines. For this special sweet corn application in Indonesia, a SEA TRUE 3 T+T has been selected. Its job – in addition to the separation of standard impurities – is removal of 'field corn' and discoloured seed kernels that have lower germination rates.

Featuring 0.06 mm optical resolution, the colour sorter is installed immediately prior to a fully PLC-controlled CC50 coater, which completes the high-quality seed processing line.

To ensure dust-free processing and working conditions, bag filters collecting/extracting 99.999 % of dust particles from the aspiration air are part of the processing system. As a further 'goodie', EC8 low speed belevators have been chosen to reduce breakage of the handled material to a minimum.

POWERFUL SEED PROCESSING PLANT

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Raiffeisen Waren GmbH is one of the leading companies in the German seed sector, especially in the northern part of the country.

For this year's harvest, they invested in a powerful new seed processing line in their facility in Wittingen, situated in the heart of Northern Germany in the triangular region defined by Berlin, Hamburg and Hannover.

The intake section of the plant consists of an intake pit for trucks tipping backwards. A frequency controlled belt conveyor leads the product to the first bucket elevator, feeding the pre-cleaning system which is carried out by an air sifter. Subsequently, the product is transported by a further bucket elevator and new rotary divider into existing silos that have been retrofitted by Cimbria with new sensors and outlet shutters. Capacity of the intake and precleaning system is set at 30 - 35 t/h.

The fine cleaning line for 20 - 25 t/h starts with a Delta De-awner, followed by a Delta Fine Cleaner and a parallel round grain HSR Indent Cylinder.

The final product is led to the existing chemical treatment and packing units, which have also been equipped with new conveying equipment from Cimbria. The whole system is completed by a new waste collection system to load kernel and dust waste separately into boxes.







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In collaboration with our partner in recycling and renewable energy of many years, J. Mared AB in Sweden, Cimbria had the pleasure of delivering conveyor and out-loading systems to Södra, an existing client in Sweden. Södra is a huge cooperative belonging to Swedish forest owners, which delivers, among other things, timber for building and construction.

At one of Södra's sawmills, Langasjön, in the south of Sweden, a new pellet mill was erected in 2018 and together with J. Mared AB we had the pleasure of delivering the conveyor system running from the cooler to the out-loading silo. Space was very limited, which presented some challenges, as of course gentle transport of the pellets was fundamental in order to avoid breakages.

The out-loading silo is mounted on weighing cells on a steel structure in order to allow trucks to drive under the silo for direct loading from the silo via a Moduflex loading chute. The silo is equipped with a stairway and platform for this operation.



DRUM INDENT FOR GENTLE SEED EXECUTION

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In our standard indent cylinder separators and our competitors' indent cylinders, there is a risk that the screw conveyor – despite a big gap to the trough – may damage the outer skin of fragile products like peanuts, soybeans, peas, beans and lentils. Therefore these products are often not passed over an indent cylinder, which means no length separation, leaving long and short impurities in the "clean" product. Cimbria now has the solution: our gentle seed drum indent TR1290.

With its purist design, the TR1290 does not look like a conventional indent cylinder separator at all. The seeds enter the sorting cylinder close to the sorting area, avoiding big drop heights by passing flow speed reducing baffles. The sorting cylinder is composed of 4 segments similar to our standard segments, also mounted on the inlet and outlet disc. The rotation of the sorting cylinder is effected by means of a parallel gear drive, acting on two rubber wheels on inlet and outlet in contact with the inlet and outlet disc. There is no longer a main shaft. A feature of the unit is that conveying of the lifted seeds is effected by means of a vibrating trough inside the drum, which is driven by two eccentric motors. A further positive effect of the eccentric motors on the trough can be found when emptying out the machine: a slight vibration is transmitted to the segments when running out of product, thus forcing the last remaining kernels to the outlet.

The first unit has been installed in India for length grading of peanuts.



FLEXIBLE BIG BAG FILLING STATION



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During the extension of an existing chemical treating plant for our Austrian customer Probstdorfer Saatzucht, Cimbria was faced with a demand for a very special and flexible big bag filling station. The customer needs to be able to either fill big bags between 800 and 1,000 kg as standard, or to also fill two 500 kg big bags and to then stack them prior to picking them up by forklift truck. For extra capacity and flexibility, the 2 stations must be placed next to each other in order to fill big bags on one side while changing bags on the other side.

Lifting and lowering of big bags is done by means of electric chain hoists.

Weighing is in this case handled by the Centricoater, but can of course also be solved by means of platform scales or flow scales in future installations





YET ANOTHER BUSY YEAR FOR MODUFLEX



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2018 has once again been a busy year for Cimbria in terms of Moduflex loading chutes, and includes all types of loading chutes, both with and without integrated filter, various sizes and for many different products, such as grain, animal feed, lime, cement, foodstuffs, chemical products, fly ash, etc. The loading chutes sold include a mix of larger loading chutes for discharge into ships and warehouses, although the majority are for unloading into trucks and train wagons. The market in 2018 has been characterised by a good willingness to invest in new silos and to upgrade discharging terminals at manufacturers of bulk goods. This has led to several orders involving multiple loading.

Delivery of filter loading chute to Germany

Cimbria's dealer in Germany, Austria and Switzerland for Moduflex loading chutes, Agrichema GmbH, received an enquiry from a firm that wanted a loading solution for PVC powder. As it was in the chemical industry, all parts coming into contact with the product had to be produced in stainless steel, in addition to which there were requirements concerning explosion-proof design in accordance with the applicable ATEX directive. As the customer also required a solution with integrated filter, the final choice fell on the type K300, where there is a filter built into the side of the inlet. In addition to the stainless steel parts, the loading chutes have antistatic modules and FlexClose cones which prevent waste and foreign bodies getting into the loading chutes when not in operation. The loading chutes are also supplied with a complete control unit and pendant control station for operation of each chute. Loading capacity is 40 t/h, corresponding to 80 m3/h.

The order consisted of 16 loading chutes and Cimbria won the order due to a technically superior solution.

Project for Vestjysk Andel in Vildbjerg, Denmark

At the end of 2017, Cimbria was contacted by Danish Randers Møllebyggeri which was set to make a bid for a major refurbishment of the loading hall at Vestjysk Andel (Vildbjerg Mill).

Organic animal feed is now being used here, which demands strict segregation of types of feed, which is primarily loaded into road tankers. In the loading hall, which has 20 loading points in 4 loading lanes, brand new equipment was required in three of the lanes. The order consisted of 16 loading chutes type S300, 16



K300 Moduflex loading chute with side mounted filter for low build-in height

16 identical loading chutes for Danish Vildbjerg Mill, all fitted on Cimbria shutters. When handling product with a high risk of explosion, the loading chute is amongst others equipped with an earth cable to prevent the build-up of static electricity.

CIMBRIA IS THE MARKET LEADER WITHIN DRY BULK LOADING WITH IT'S BRAND MODUFLEX

Q30 shutters, 21 Q40 shutters and 16 inlet hoppers in different dimensions. All 16 loading chutes are identically constructed in normal steel with internal guide cones in ultramid. Furthermore, the loading chutes are supplied with a complete control unit and with pendant control stations adapted to each loading lane, in addition to which operation of the shutters is integrated such that they open and close on the individual silo depending on the choice that the operator makes. Delivery took place in September/October and the project was operational by the end of October 2018.

Order for a feed factory in Poland

In conjunction with the construction of a new loading terminal, Cimbria Unigrain's dealer in Poland, Buttimer Polska, was contacted by Budowa Tasomix at the beginning of the year as they needed 12 loading chutes.

The factory in Pionki close to Radom will be the most modern feed factory in Poland, primarily producing feed for poultry and pigs. Production capacity will be around 360 thousand tonnes per year. The production facility in Pionki will supply feed to pig and poultry producers in southern and central Poland. All 12 loading chutes are identically constructed in normal steel with internal

guide cones in ultramid. The loading chutes are

also equipped with FlexClose cones which prevent product losses and ingress by insects, etc., when the loading chutes are not in operation. Furthermore, the customer wanted the chute modules to be produced in a material approved for foodstuffs and demanded that they should be antistatic. In order to prevent the build up of static electricity, the loading chutes are fitted with an earth cable with a clamp that can be connected to the road tanker during loading. The loading chutes are also delivered with a complete control unit and control panel. Moduflex loading chutes will be used to load the finished animal feed into closed road tankers.

Delivery took place in September 2018 and the loading chutes are now fully operational.



KENYA FARMING



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Kisima, Marania and Agventure – Conveying, Cleaning and Storage

Grain farming in East Africa has benefitted over many decades from good growing conditions, as well as financial and physical barriers to import. Over time, it has become apparent that the production of Kenyan cereals has become increasingly uncompetitive, with declining yields and an inability to compete with international pricing. In addition, continued mono-cropping of cereals has brought increasing soil-borne disease and a reduction in productivity, making the industry vulnerable.

A few years ago, a group of farmers visited Australia. Their objective was to understand why production of cereals in Kenya was so much more expensive than elsewhere in the world. The message they took home was:

• The cereals' mono-cropping system is not sustainable in the long term.

• A conversion to conservation agriculture is necessary to ensure long-term farming sustainability.

Against this background, Agventure Limited was established. Agventure has an increasing amount of experience of practical usage of conservation agriculture. These techniques have aimed to increase water holding capacity, biological activity and yield potential and consistency. In addition, diversification of cropping has led to more diversified and sustainable income streams.

Agventure Limited deals with canola seed to process cold-pressed oil. Marania farm plants wheat, barley, oats, peas, canola and Rhodes grass. Kisima produces wheat and barley as its primary crops. They have invested in modern machinery, all equipped with satellite management systems, with the precision agriculture model in mind.

Some years ago, Marania and Agventure approached Cimbria East Africa Ltd with regard to their high-quality machines for efficiency in daily operation. We supplied them with equipment for grain reception, cleaning & storage facilities. These installations are still in operation.





ALL



Agventure Catwalks fitted on the pylons

Bulk loading

Marania Catwalks fitted on the pylons

BREWERY RETURNS TO LAKESIDE CITY



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East Africa's brewing giant, East African Breweries Ltd (EABL) has returned to Kisumu, situated on the shores of Lake Victoria, Africa's largest fresh water lake, after a hiatus of some 16 years. The new 125 million Euro brewery investment will use sorghum as the main raw material in the production of its key beer products. The brewery plant was commissioned in July 2018. The sorghum is largely sourced from farmers in the sorghum growing counties within the lake region.

To ensure a constant supply of sorghum to the brewery, EABL has leased the National Cereals and Produce Board (NCPB) grain silos in the city to safely store the sorghum that it procures from farmers. The existing 30,000-tonne grain silos were built in 1989 and are equipped with Cimbria drying and grain precleaning facilities.

To enhance the quality of sorghum from the silos to the brewery, EABL decided to improve the cleaning facilities in the silo by providing fine cleaning and de-stoning equipment in the silo plant. EABL awarded the contract to Cimbria to supply and install equipment that would clean the sorghum to meet its stringent quality requirements. Working together with the EABL team, the solution for this project comprised the supply of conveying equipment, service and refurbishment of an existing Delta 146 Combi Cleaner already installed in the plant, and a TS360S De-stoner, complete with aspiration system and electronic control.

The equipment has already been delivered and installation is ongoing. The plant is expected to be completed, tested and commissioned by the end of November 2018.

Cimbria's more than 25-year relationship with EABL has seen Cimbria supply EABL with stand-alone machines, a fully-fledged barley seed processing plant and after-sales service.





