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CIMBRIA NEWS 2015/16

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OUR KNOWHOW

CIMBRIA NEWS 2015/16

GLOBAL PERSPECTIVE – LOCAL FOCUS

Søren Overgaard, CEO - sov@cimbria.com

Cimbria is an international company with its headquarters in Thisted, Denmark. The company was founded in 1947 and we are proud to have a long history of supplying good, reliable solutions based on in-house technology and utilising the opportunities presented in the global market. Today Cimbria is one of the world's leading suppliers of projects, products and services to grain, seed, feed and food producers.

Cimbria's mission is to contribute to the creation of a sustainable link between efficient production and optimum utilisation of agricultural crops with due consideration of man and the environment. We achieve maximum machine utilisation with minimal environmental impact, and our solutions play a significant role in securing the global food supply.

Thousands of Cimbria plants are in operation in many parts of the world. Our plants operate under very different conditions and process a wide range of products, with such diversity being a result of our research and development over a period of more than 65 years. This is the best reference for our expertise and competitiveness in the global market.

Cimbria's core is within the grain and seed business and our main markets are grain, seed, feed and food. Our equipment and plants are also used in other markets such as breweries, malting houses, fertilizer storage systems, biomass treatment plants, cement plants and for the handling of other bulk materials. Credibility, quality, efficiency and flexibility are some of the business qualities that have made Cimbria a relevant partner for many of our customers throughout the world.

At Cimbria we design, develop, manufacture and install customised solutions, ranging from stand-alone equipment to complete processing lines and major turnkey projects, including advanced automation and information systems. Our aftermarket service ensures that Cimbria solutions provide good returns for our customers in years to come and our constant innovation ensures that our customers receive the latest technology.

Cimbria's ability to deliver fully integrated and efficient solutions is based on an understanding of our customers' business and their needs, wants and demands. This is why Cimbria has built up competences and skills over decades within crop science and agricultural logistics which are used in our solution development and in consultation with our customers. This agricultural knowledge, in combination with our operational excellence within manufacturing, engineering and project management, has made Cimbria a strong and reliable partner for customers who are looking for their projects to be completed on time, within budget and delivering the maximum return on their investment. Cimbria's knowledge of agricultural production and processing is applied as part of our services to optimize plant performance and to ensure that operating staff are trained to utilize the full potential of a Cimbria product or solution. With the shared objective between us and our customers, we live our values with "Solutions Together".

Our vision continues to be that Cimbria will maintain and further develop our position as a global, innovative and leading supplier of quality products and integrated solutions for the processing of grain and seed and handling of animal feed, food and other bulk goods.

In addition to Cimbria's more than 950 committed employees, a number of Cimbria offices, dealers and agents are present throughout the world, and are thereby always close at hand and ready to provide services to all our customers. Their dedication and capabilities are key factors in our success.

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

Cimbria Group of Companies:

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

Partners and dealers:

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

DEDICATED AFTER SALES SERVICE

Lars Nørgaard - lno@cimbria.com

Service optimizes production

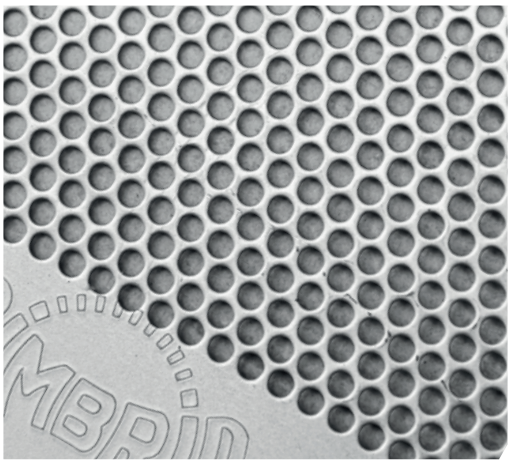
Operating a modern facility is a complex process. Increasing demands with regard to output quality, flexibility and cost-effectiveness require constant focus on quality improvement, energy efficiency and minimal downtime.

A fundamental part of Cimbria's business is to provide easy access for new and existing customers to spares, service and expert knowledge. Our service technicians frequently visit production plants, assisting with parts replacement, operator training, etc., to ensure the smooth operation of all equipment.
A network of own companies and local authorised partners offers exclusive after-sales service and ensures our global presence and closeness to our customers with well-qualified assistance.

There are many benefits: Preventive maintenance, including regular replacement of wearing parts, prevents many unnecessary and critical production shutdowns, in addition to the fact that training of staff members and consultation support from our skilled service engineers contribute to optimisation of the equipment and plant performance.

Training and Education

No plant is complete until the people who are responsible for daily operations know exactly how it should be operated, controlled and maintained. Placed strategically, Cimbria has established test and training facilities which provide teaching, instruction and training of plant managers and operators. We arrange both general courses and individually designed courses, tailored to qualify personnel for operation and maintenance of the plant.



The devil is in the detail

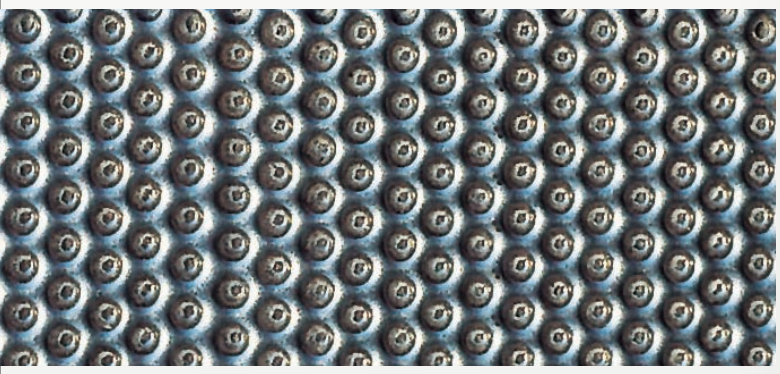
Cimbria develops and offers technology which is reliable and with performance that is second-to-none. We are serving a market that understands and appreciates the importance and benefits of our experience and knowledge – and attention to detail in every single component.

It is often said that the devil is in the detail. Nothing could be truer when it comes to the importance of using original Cimbria parts. Only by focusing attention on the design and manufacture of every single component the process performance of the machine in question can be assured.

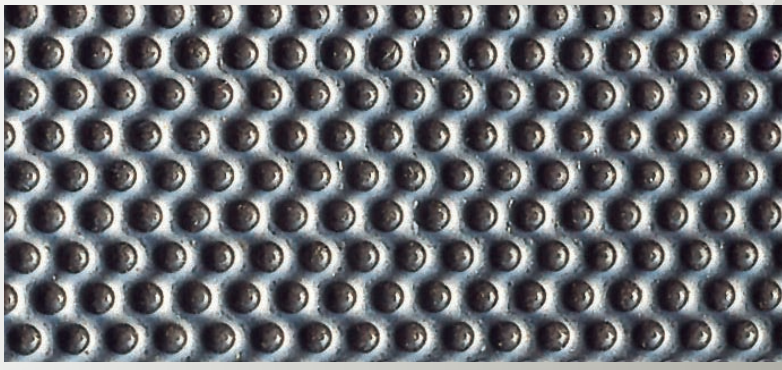
Perfect examples of this are the screens and cylinder shells for our range of Delta cleaners and Heid Indent cylinder separators. What to the untrained eye may look like simple metal plates with thousands of holes or pockets is in fact a highly crucial part for ensuring optimum cleaning and grading. The combination of the right steel quality, the use of the most accurate punching machines and documented certified tools that the market has to offer and subsequent post-treatment and assembly is crucial to ensuring Cimbria's quality, which in turn guarantees process quality and capacity.

For further information about the service that we are able to offer, please contact your local Cimbria office.

Cimbria original cylinder



Copy cylinder



The Cimbria original cylinder offers the highest possible number of grading pockets, thus providing a higher sorting capacity and better separation quality. Furthermore, the staggered arrangement of the pockets increases the lifetime of the segments.

CHIA – THE NEW FOUNTAIN OF YOUTH?

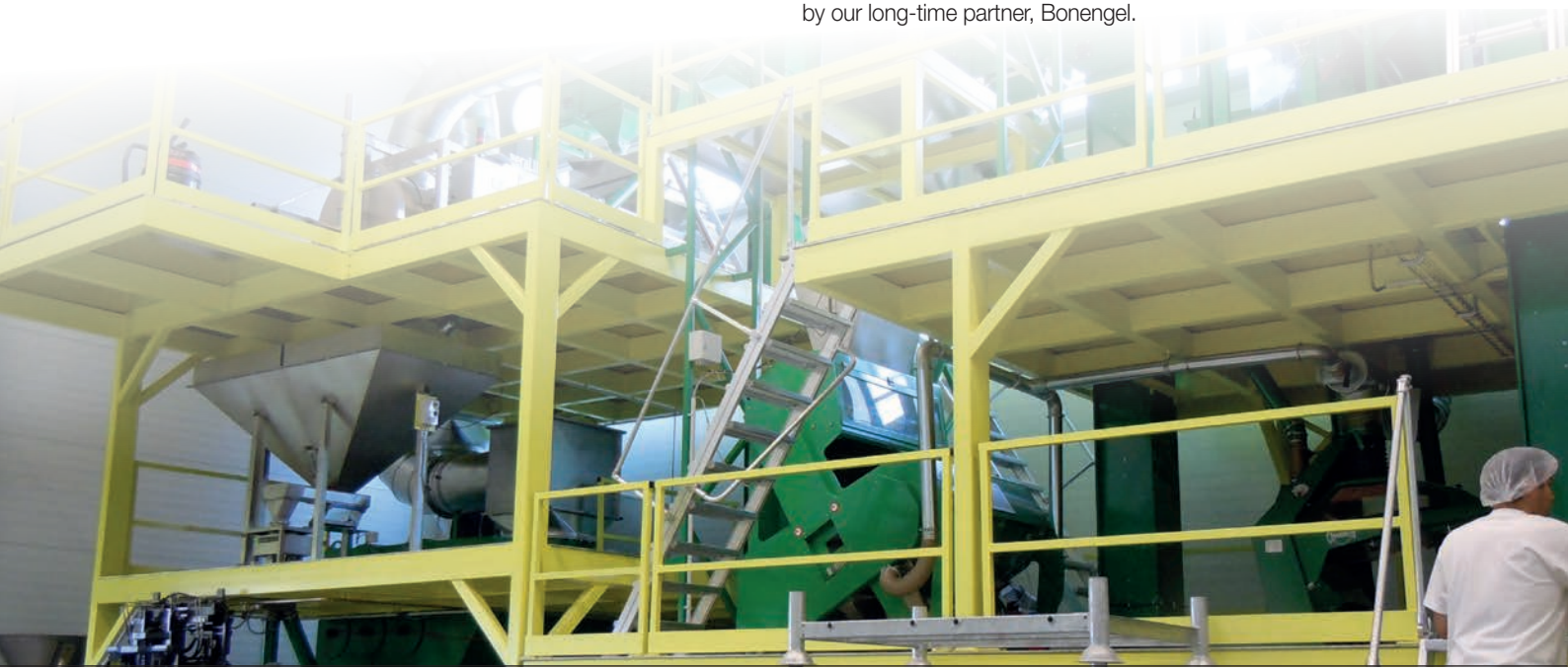
Friedrich Kienmeier - frk@cimbria.com

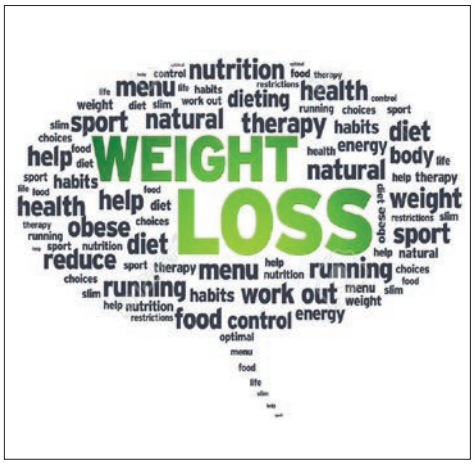
Ask about the trendiest crops nowadays, and quite often you will hear Chia mentioned. It has a superior content of antioxidants, proteins, dietary fibre, vitamins and mineral nutrients. More than that, it has the highest known content of Omega 3. Chia has been proven to have an anti-aging effect, it helps promote weight loss and reduces cholesterol levels, reduces the risk of heart attacks and apoplectic strokes and has a positive influence on blood sugar levels. Originally stemming from Mexico and Latin America, Chia has recently started to conquer the entire planet, now being planted in almost all parts of the globe.

It is no wonder that Cimbria is facing more and more requests for the processing of this wonder-crop. In addition to several single machines already delivered in this field, Cimbria has now supplied the first complete processing line for Chia.

A major producer of these seeds, Übelhör in Southern Germany, invested in a processing line with 1.5 t/h input capacity composed of a Delta Supercleaner, Indented cylinder, Gravity separator, Destoner, and a SEA Chrome colour sorter 3.

All conveying equipment consists exclusively of Cimbria's pendulum bucket elevators and jog conveyors for very gentle handling. The final stage of the plant, prior to packing, is a disinfection line for food safety reasons. All installation and steel construction of the line was handled by our long-time partner, Bonengel.





CIMBRIA HAS SECURED THE BIGGEST ORDER IN THE COMPANY'S HISTORY IN CONNECTION WITH THE DELIVERY OF 23 GRAIN SILO PLANTS TO EGYPT

MAJOR ORDER TO EGYPT

Henning Roslev Bukh - hrb@cimbria.com

Cimbria has secured the biggest order in the company's history in connection with the delivery of 23 grain silo plants to Egypt. This order is considered to be the world's largest order for grain silos, with a total storage capacity of 1.38 million tonnes and a value of more than 100 million US dollars.

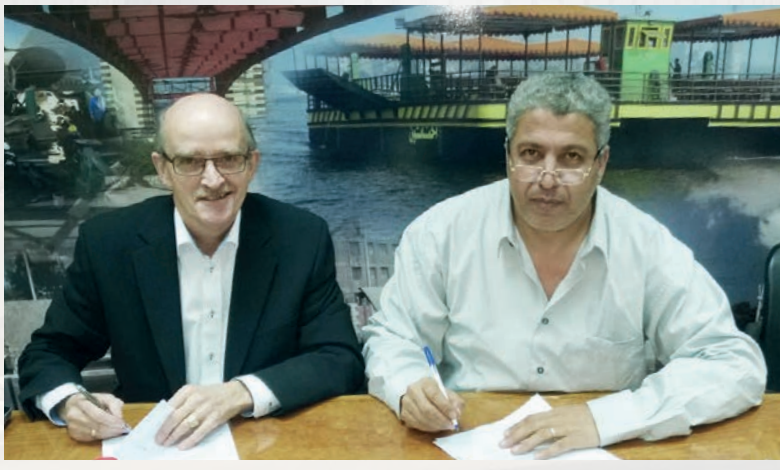
Financing of this huge project has been provided by the United Arab Emirates to the Government of Egypt to support the development of the country. Furthermore, the two countries agreed that the Egyptian Engineering Authority of Armed Forces and the Administration of Military Works should select the main contractors and control and supervise the entire implementation. Cimbria was competing against companies from China, India, Turkey, USA, Canada, Germany and the United Kingdom for mechanical-electrical works. In the end, Cimbria was selected and subsequently negotiated sub-contracts with Arab contractors for 15 plants, Petrojet for 4 plants, Samcrete for 2 plants and Misr Concrete Development Co for the last 2 plants.

The order comprises project design and engineering, supply of conveying equipment, cleaners, dust filter systems, weighing equipment, laboratory equipment, silos, electronic control system featuring SCADA / PLC, inventory recording system with scanner in each silo, sufficient spare parts for 3 years of operation and delivery to Egypt. The project also includes supervision of the equipment, silos and electrical systems at the 23 facilities. Following installation, Cimbria will embark on a training programme in which 20 Egyptian employees at each plant will receive instruction in operation and maintenance. Final capacity testing will also be performed prior to handing over the many new plants. Each of the 23 plants has a silo capacity of 60,000 tonnes, including conveying and cleaning facilities with a capacity of 200 tonnes per hour. Total silo capacity will thus amount to 1.38 million tonnes.

Geographically, the locations of the 23 plants stretch from the Mediterranean Sea and Suez all the way down to Aswan, in addition to a plant at an oasis 600 km west of Aswan.

Egypt has a high consumption of grain: it is the world's biggest importer of wheat and has an annual import of 17 million tonnes of different grain products. Furthermore, local production takes place on 4% of Egypt's rural land, primarily in the Nile Delta and areas along the

Open bag storage - before the delivery of steel silos



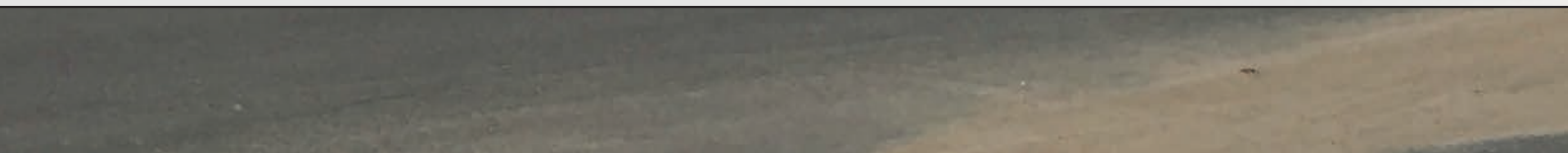
From left: Henning Bukh, Cimbria, and Ahmed Eissa, Arab Contractors, during the signing of the contract

Nile down to the Sudanese border, corresponding to a total production of 23 million tonnes of a range of different grain products.
Of the 23 plants being delivered, Cimbria will be supplying 12 facilities for The Egyptian Holding Company for Silo Storage under the Ministry of Supply & Home Trade, which will primarily be used as a buffer and intermediate storage facilities for imported wheat. 10 facilities will be erected for the Principal Bank for Development & Agricultural Credit under the Ministry of Agriculture and Land Reclamation at various locations throughout the country to which farmers can sell and deliver locally produced grain. Currently, a substantial part of the grain received by the Ministry of Agriculture is stored outdoors, which results in enormous losses. The new silos will replace such open bag storage facilities. The final facility is to be delivered to North Cairo Flour Mills Co. as a buffer for its flour mill.

Cimbria's project department has a staff of 180 employees who are responsible for a range of functions, including sales, project design and engineering, delivery, assembly and after-sales service. Project design has been completed; production of the many plants has been ongoing since spring 2015 and will be completed in February 2016. The complete shipment will eventually fill around 500 40-foot containers packed with equipment and another 800 containers with round steel silos. Delivery began in July 2015 and will continue until early spring 2016. By the end of 2015 about 80% of all shipments will be completed. Supervision of installation at most of the sites is in full progress following training and commissioning.

The last 25 years have seen Cimbria delivering an almost uninterrupted succession of grain facilities to the country, with more than 40 reference plants having been completed to the satisfaction of customers. These reference plants have proved to be invaluable in connection with negotiations to secure this gigantic new order. Since 2012, Cimbria has had its own sales office in Egypt, and its staff have played a huge role in winning this order. Cimbria's solutions within silo plants are recognised for their ability to ensure the highest possible efficiency in essential grain crops, as well as minimising losses – a crucial factor in Egypt, since much of the locally produced grain is stored in open outdoor sack storage facilities, with enormous losses as a consequence.

Installation work in progress



NEW SEED COATING PLANT IN NEW ZEALAND

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Cimbria has successfully installed a new seed coating plant at H&T Agronomics, situated in the town of Feilding in the Manawatu region of New Zealand's North Island.

H&T Agronomics was founded in 2003 and is headed by Paul Oliver and Duncan Thomas, who are qualified and experienced in agronomy and also specialise in seed enhancement products that bring together the very best technologies from around the world. Their aim is to bring new, innovative technology to New Zealand's farmers, a major part of which is their seed enhancement programme.

Cimbria Australia Pty Ltd had the task of convincing H&T that we had the best seed coating experience and technology, and that we were able to design, supply and commission a new plant in an existing building using a Cimbria Heid CC150 Centricoater with a specification to fulfil their current and projected requirements. Prior to ordering the new Centricoater, H&T had visited the operations of South Island Seed Dressing and Storage Co. Ltd. in Ashburton, New Zealand, where there is a Cimbria Heid CC50 Centricoater plus other Cimbria processing equipment.

The CC150 Centricoater is the largest Centricoater in New Zealand and has a belt feeder and dosing system consisting of two flow meters, one direct dosing pump, one pump-supplied glass cylinder, the option of inline mixing, one variable powder feeder, two 200-litre pre-mix tanks, two 400-litre pre-mix tanks, plus preparation for the future addition of hardware. All this equipment can be controlled by single or staged dosing recipe software.

The seed to be coated is conveyed into the Centicoater's pre-bin using a new Cimbria Heid pendulum bucket elevator fitted with a vibratory feeder. This ensures a very good and efficient gentle handling feed system with minimum seed loss on clean-down, as well as maximum seed hygiene.

Some of the seed types handled and successfully coated to date are: rye grass, tall fescue, plantain, chicory, clover, maize, wheat, barley, sorghum, brassicas, oats, rye corn, fodder beet, sugar beet, lucerne (alfalfa).

H&T feedback and strategies as follows:
"Yes, the new plant is performing nicely, and we have put a decent volume through it with no hiccups"

- We champion Innovation, Technology and Communication – and our Cimbria equipment matches all three superbly.
- We have a look at each of the species of pastoral, forage and arable seed that we are involved in and enhance the best genetics we can find with crop protection, bio-stimulant and polymer products to add value for the New Zealand farmers.
- We call this process and its results "H&T Optimised".

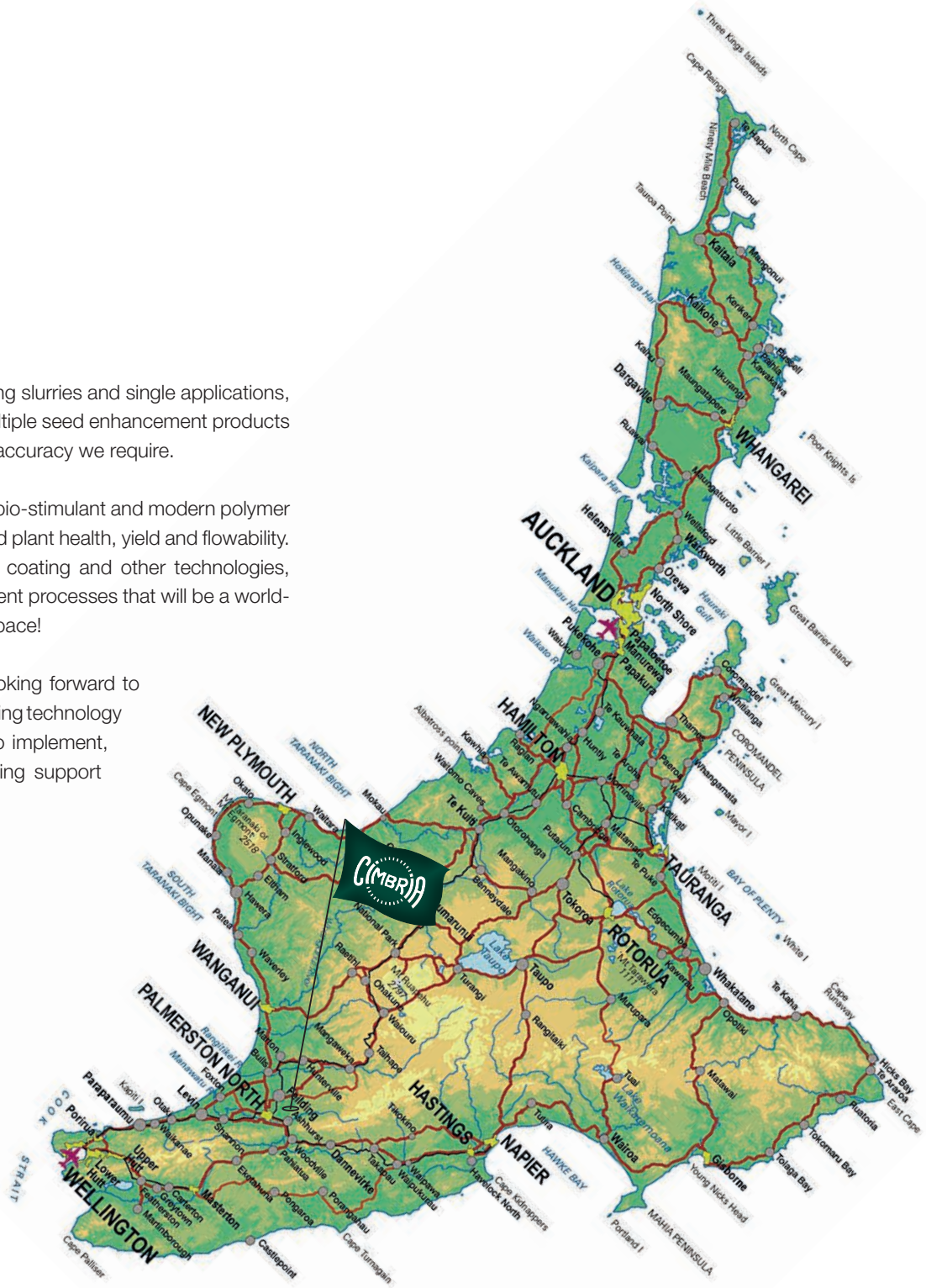
None of this would be possible without the Cimbria CC-150 and its multiple dose line technology.

Paul Oliver and Duncan Thomas - Happy Centricoater owners

Where others are still formulating slurries and single applications, we have the ability to apply multiple seed enhancement products in the right order and with the accuracy we require.

We are utilising trace element, bio-stimulant and modern polymer technologies to chase improved plant health, yield and flowability. H&T are investigating powder coating and other technologies, and evaluating new enhancement processes that will be a world-first if successful. Watch this space!

Cimbria Australia Pty Ltd is looking forward to being part of any future processing technology that H&T will find necessary to implement, whilst in the meantime providing support for their current plant.



NEW INSTALLATIONS IN THE BALTIC STATES

Arne Jensen - aje@cimbria.com

Cimbria's partner in the Baltic States, "Dotnuvos Projektai", has once again sold, installed and put into operation a number of new installations in 2015.

Dotnuvos has managed to maintain its position as the preferred supplier in the market – a strong local set-up on the market and the ability to offer everything including drawing up of proposals, designing plants, carrying out installation and after-sales service is very attractive to our customers.

In 2015 four new silo plants have been installed. Each plant includes our well known Delta 146 pre-cleaner, a continuous Cimbria flow dryer from 26-50 t/h and 100 t/h conveying equipment.

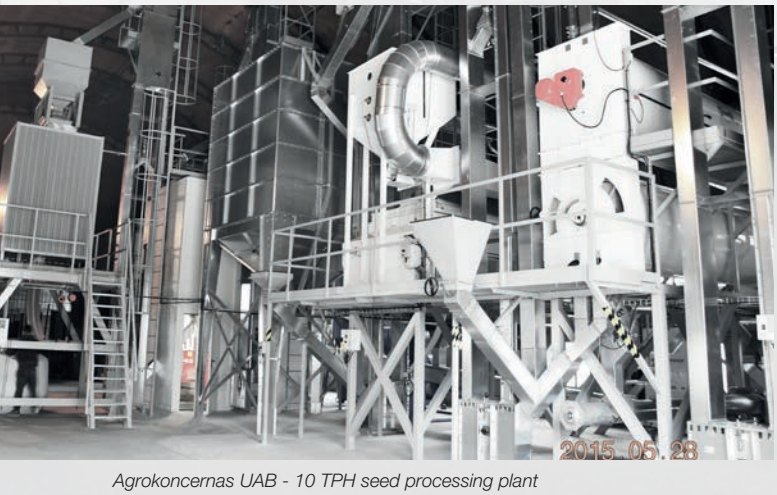
Musos aruodai – 12,000T silo

SIA Linas Agro graudu centras – 8,000T silo plant

In addition, a new 10 t/h seed processing plant, which includes a Delta super cleaner, indented cylinder separator, gravity and a centricoater, has been put into operation. For gentle handling of the seeds, the line is equipped with Cimbria low speed bucket elevators.

Dotnuvos has been responsible for the full-line service, all the way from design/engineering, delivery of equipment and steel structures to supervision, mechanical and electrical installation.

SIA Linas Agro graudu centras – 8,000T silo plant



Agrokoncernas UAB - 10 TPH seed processing plant

Grainmore UAB – 10,000T silo plant

SUPPLYING FELLESKJOPET, NORWAY

Willy Jensen - wje@cimbria.com

The Norwegian company, Felleskjopet Agri, is the most important supplier of grain, seed and various articles for the Norwegian agriculture. The company owns and runs approximately 100 stores and has 2500 employees. The Felleskjopet is a union of 44,000 farmers. The company works as a market regulator and purchase and sales co-operation, and the main purpose is to contribute to the strengthening of the members' economy in the short and long run. Felleskjopet Agri has once again been the centre of interesting and diverse tasks for Cimbria, with a number of these being described in the following article.

Felleskjopet Kambo

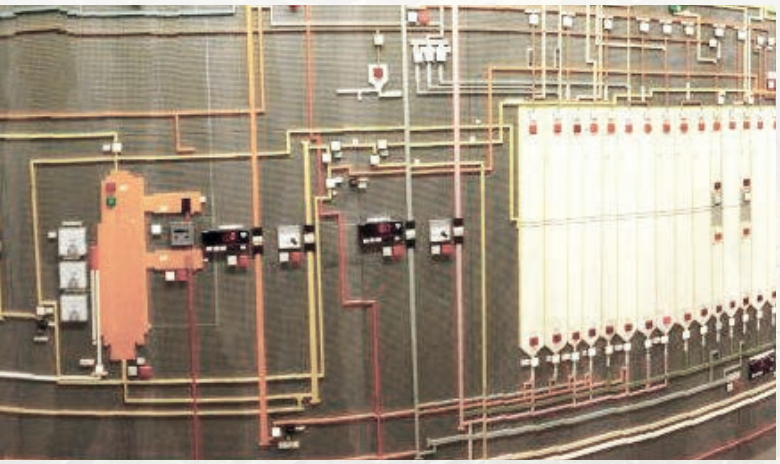
At the cooperative at Felleskjopet Kambo almost 1,000 data collection points have been set up for monitoring of the grain silos, thereby safeguarding the considerable assets that are in storage here. The temperature system monitors a total of 48 silos, and more than 3.3 km of sensor cables have been installed. The facility at Kambo is one of the cooperative's biggest facilities in Eastern Norway, and includes a reception unit for grower grain, which is taken in and cleaned and dried, with some of it continuing to the feed factory. The facility also handles transit grain which is sailed to Western Norway and Northern Norway respectively. Furthermore, the facility contains a major feed factory and an extensive fertiliser packing plant. Cimbria has delivered a large number of efficient Unitest systems to the cooperative over the years.

Felleskjopet Eiker

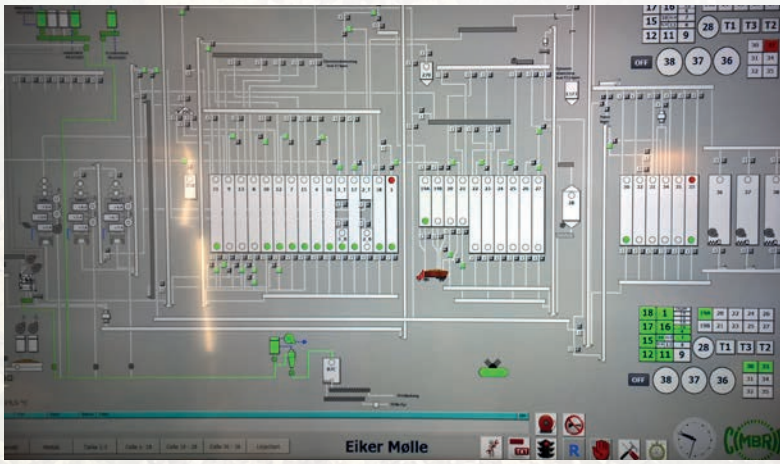
2015 has once again seen new complete plant control units delivered by Cimbria to existing cooperative facilities. These include a facility at Elverum and a facility at Eiker. New plant control units were required at both facilities, as they were both running "old" control units consisting of large switchboards with flow diagrams and push buttons for operating the machines. This represents a major change for those operating the plants – and inevitably initially generated some scepticism as control of the plant migrated from a large switchboard to a "small" PC monitor. As has also been the case on previous occasions, however, this scepticism quickly gave way to enthusiasm once the new control systems were up and running. Both facilities are grain plants that focus exclusively on reception, cleaning, drying and storage of grain.

Gran Molle

This year the cooperative at Gran Molle has seen the installation of a new cleaner type 157, which for them is a particularly familiar machine. A similar machine, which they have been extremely satisfied with, was installed back in 2008 – and this has resulted in the acquisition of another machine for their grain reception plant. As it was the case for the original machine, this new installation has been "shoehorned" into position due to the tight confines, but the result has been excellent with good conditions for operation and service of the machine via the installed platforms and walkways.



Old switchboard control panel at Felleskjopet, Eiker



New control panel at Felleskjopet Eiker, supplied by Cimbria

Felleskjopet Holstad

At the cooperative's biggest seed corn facility, which is located in Holstad, new indented cylinders have (once again) been installed this year. Last year we installed 2 sets of Cimbria Heid indented cylinders type HSR 16020 designed to replace 6 good old Cimbria type 16 indented cylinders, which were originally installed in the nineteen-eighties and now had their best days behind them. This year, 6 old cylinders have been replaced by 5 new Heid indented cylinders. The plant cleans barley, wheat, oats and rye, and there has been particular focus on achieving a boost in capacity corresponding to the installed 108 cleaners so that they can be utilised efficiently. The reason why 4 and 5 new cylinders respectively are installed is due to a wish on the part of the customer to spend the minimum amount of time changing the cylinder shell.

The indented cylinders that were installed last year sort barley, wheat and oats – without shell replacement when running barley and wheat and with only replacement of one set of cylinder shells when oats are sorted. The indented cylinders that have been delivered this year sort oats and wheat without shell replacement when changing product, such that in actual fact the shell cylinders remain practically unchanged.

A great deal of focus has gone into achieving the greatest possible efficiency from the indented cylinders, among other things by ensuring that long-grain sorting runs through two cylinders in order to ensure the best possible efficiency and yield.

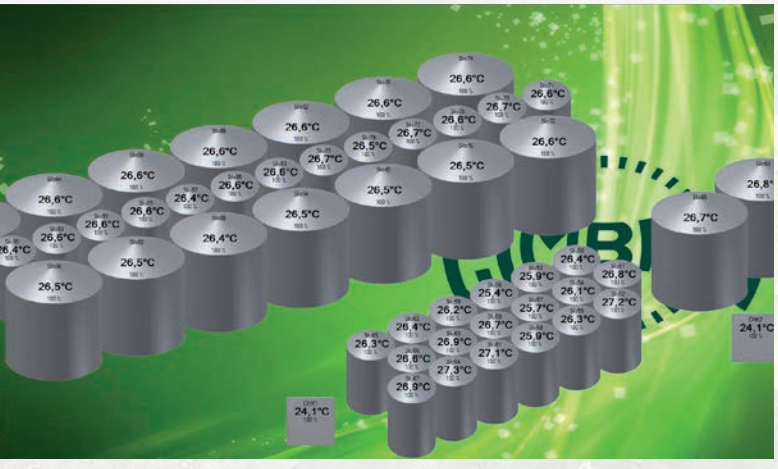
Felleskjopet Rogaland Agder, Stavanger

At the cooperative of Felleskjopet Rogaland Agder at Kvalaberget in Stavanger, we have installed a brand new grain reception plant with an angle conveyor in the hopper in order to ensure the minimum possible footprint, since the plant is more or less situated on the quay. The main machine in the facility is a new 159 cleaner, which has been installed primarily to ensure that large impurities do not contaminate the product, in addition to which weed seeds and other small impurities that can typically lead to problems during storage are removed.

The facility is somewhat unusual in that a dryer is not installed despite the fact that it is a facility that receives grain during the harvest. Instead, a screw conveyor is installed which is used for the addition of acid, thus achieving a product that can be stored – depending on its moisture content – for a period of a few weeks to a few months, after which it is used in the production of animal feed – incidentally at one of the biggest factories in Norway.

The basis for the investment is an efficiency drive in which the inner plant has been closed down and the grain is conveyed to the new facility instead of being stored locally and then later moved to the point of consumption at the factory.

The facility is not only in use during the harvest, but is used more or less all year round for acid treatment of product that analysis has indicated contains salmonella. Trials have shown that the combination of the hopper and conveying equipment prior to the acid screw, as well as the acid screw itself, for this treatment has been highly effective in terms of dealing with problematic product.



Indented cylinder separator at Holstad

SIMPSONS MALT LTD

Dave Thomson - dth@cimbria.com

Simpsons Malt is a 5th generation company that has produced fine quality malt for over 150 years in the UK from several sites. The company produces more than 280,000 tonnes of malt per year and has recently upgraded a warehouse and malt silo facility prior to packing at their Tivetshall St Mary site in Norfolk. This project is in addition to other upgrade projects which Cimbria is currently working on with Simpsons.

The new facility consists of 3x intake routes feeding into a nest of 12x 30-tonne smooth-walled internal silos, where the product is held prior to packing for storage in the warehouse facility before being shipped to customers around the UK and the rest of the world. As well as the silos being supplied by Cimbria, we have also supplied Cimbria destoners and all associated handling equipment.

The project has been installed by Shields of Driffield, with whom Cimbria in the UK has worked closely on many projects.

This facility went online in November 2015.

DODSON AND HORRELL LTD

Dave Thomson - dth@cimbria.com

Founded in 1939 Dodson and Horrell, produce high quality Equine, Animal feed and Specialist pet food in their manufacturing plants located in Northamptonshire.

Earlier this year with much competition from the UK and Belgium, Cimbria in the UK secured an order for 6 x Smooth wall 120 silos, 3.5m square x 15m high, in nest formation.

Dodson and Horrell needed to develop a raw material storage and automated distribution facility for grain and pellets for their main Equine food blending plant. With limited space between existing buildings and silos, there were challenges for the steelwork design and the installation team to get the silos into such a tight position and both went well. The silos are discharged by 350mmØ dosing screws, they have triple flight for smooth accurate discharge and are invertor controlled.

This installation (safely, timely and in budget) was the first construction partnership between Cimbria and Concept Complete Service Ltd who are based on the same site as Dodson and Horrell and have undertaken the majority of their engineering design, fabrication, installation and maintenance work for a number of years.

NEW DRYER AND SILO AT SLÄTTÄNG, SWEDEN

Niels Christensen - nch@cimbria.com

The Slättäng estate in Skåne in Sweden is an estate with a long history. Since the end of the nineteenth century, the estate has been run by three generations of the Bennet family, who are highly innovative and have become pioneers in terms of agricultural development.

Jacob Bennet is the current owner and operator of the estate in Skåne, in addition to managing a large farm in Latvia.
The Bennet family has always placed exacting demands on technology and suppliers in order to ensure that they always have the best and latest developments at their disposal.

Cimbria has delivered equipment in the form of dryers and cleaners with ancillary equipment to both the second and third generations of the Bennet family on the estate.

In 2014 a fire which started in Slättäng's straw-fired plant spread to other parts of the buildings and destroyed the existing grain dryer. Jacob Bennet immediately contacted Cimbria to set the wheels in motion on the development of a new project, which was implemented in 2015.

In addition to a new central boiler unit with straw and woodchip storage facilities, the new plant comprises:

- 130 t/h reception plant with 50 m³ reception pit and two 500t wet silos
- 25 t/h grain dryer, A-14, with calorifier
- Cleaner consisting of Delta 146, which, in addition to pre-cleaning during the harvest, is used for cleaning malting barley and seed corn

Jacob Bennet, owner and operator of the Slättäng estate

NEW CLEANER FOR BEANS AND PEAS

Niels Christensen - nch@cimbria.com

Kalmar Ölands Trädgaardsprodukter (KOPT) on Öland in Sweden produces red and white onions, brown and white beans and peas. The products can be delivered with full traceability.

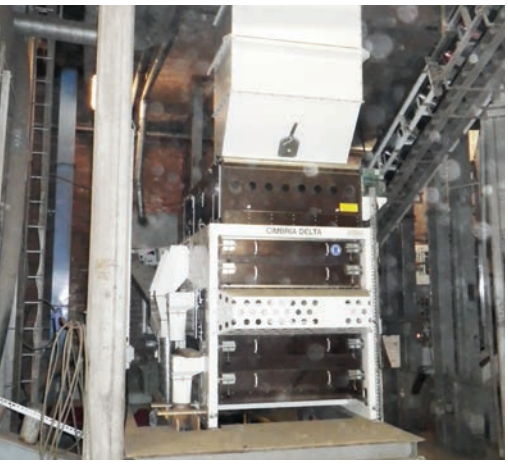
Kalmar Ölands Trädgaardsprodukter is owned by a number of members/suppliers, primarily on Öland in the Baltic Sea off the southeast coast of Sweden at Kalmar. Thanks to the location's mild climate and lime-rich soil, good growing conditions exist on the island.

This spring KOPT decided to invest in a new fine cleaner – type Delta 114 – having looked at several manufacturers specialising in the cleaning of beans and peas.

The Delta 114 cleaner was chosen due to its large screen area and pre-suction and after-suction capabilities, and in particular because the machine is equipped with electric motors for the adjustment of in-feeding and air regulation. The settings for the different products and their variants are saved on a PC as and when KOPT has processed the different types and variants amongst each product. This ensures a high degree of uniformity in the final sales products, whilst the settings can easily be regulated from the control room. Fine adjustments can, however, still be carried out on the machine's control panel; these fine settings can also be saved on a PC.

The Delta cleaner and ancillary equipment was delivered in early summer 2015, and the plant was ready for the harvest commencing in the middle of August.

The results and experience gained from the first season have been particularly satisfactory.



DURUM WHEAT STORAGE AT BARILLA IN PARMA

Ugo Balestrieri - balestrieri@cimbria.it

At the turn of the year Cimbria Heid Italia designed and built a new storage facility for durum wheat at Barilla Spa, a world leader in the production of pasta.

The new storage plant represents key logistical support for the economic and productive development of Barilla and it was decided to build it in Parma at the headquarters of the Italian giant.

Cimbria supplied – on a turnkey basis – the reception from trucks and trains and the conveying of the durum wheat that Barilla collects from all over the world and processes in its mills in Parma for the production of semolina and by-products. The intake rate of the grain amounts to 200 t/h and the product is pre-cleaned and then stored in 16 silos which have a capacity of approx. 3750 tonnes each.

The Cimbria incoming transport system is made up of chain conveyors and bucket elevators. These machines have been equipped with all the necessary safety accessories for fully automated functioning of the plant, thus enabling a minimal presence of personnel during operation. To avoid any cross-contamination between the different types of wheat, all conveying units have been equipped with accessories for self-cleaning.

The stored grain is then extracted from silos and transferred to the mills for the milling process through a system of chain conveyors and belt conveyors at an hourly capacity of 140 T/h. The system that transfers the product is 300 m long; this distance is covered by a metal aerial catwalk designed by Cimbria.

The software management system allows the use of the plant even without the presence of personnel, with the alarm system and the remote management of utilities providing constant supervision of operations from anywhere. Recipe management for the accumulation of the different varieties of wheat is handled automatically by the operator, who decides to convey the products in the various bins without any risk of contamination.

The strategic plant commissioned for Barilla confirms the excellent position of Cimbria Heid Italia in the Italian market.

SILO ROOF
OVERVIEW OF
THE BEAUTIFUL
SURROUNDINGS
OF PARMA

FURTHER IMPORTANT STEPS INTO BRAZIL

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Franz Franer - ffr@cimbria.com

An agricultural giant of continental proportions, Brazil is an example of crop husbandry and a major global producer of food. This year, Cimbria is strengthening its operations in the country and actively contributing to better and more responsible production by initiating its sales of grain and seed processing equipment for local customers.

This initiative is a result of the evolution of our business strategy in the territory, which began in 2013 through a successful partnership with Momesso involving the sale of six projects incorporating CC 250 centricoaters.

In addition to seed treatment, Cimbria will sell our line of grain and seed processing equipment through Momesso. Momesso has over 30 years' experience in the market, with two industrial plants, an administrative office and a staff of over 85 employees distributed in dedicated sales & marketing teams, administration, engineering and technical support.

To further support our partner and ensure a consistent deployment of the strategy, we have planned extensive technical and commercial training. The agenda began in the second quarter of the year, with meetings and training at Momesso's premises. Subsequently, Momesso completed the programme with an in-depth technical immersion at our Danish based headquarter and facilities in Austria.

We can already see the results of these efforts: The sale of our first SEA Chrome color sorter in the country! Just as subsequent orders from large companies such as BASF and Limagrain are already in place. Marketing activities are already underway, with a launch that took place at the XIX Brazilian Seed Congress, PR campaign and production of communication materials.

The structuring of seed treatment and grain processing sales in Brazil allows Cimbria to meet the needs of our local customers in a more integrated and relevant fashion. We are now capable of exploring new opportunities based on the synergy of our businesses and are able to position ourselves as a major supplier of agricultural equipment in the Brazilian market.

Momesso Team for Training in Thisted

New production facilities of Momesso

GRAVITY SEPARATOR IN NEW MARKET SEGMENTS

Stefan Bruna - sbr@cimbria.com

Apart from the gravity separator's well-known seed applications involving the removal of straw, light, immature, insect-damaged, germinated or rotten seeds, there are a lot of other tasks that the machine can be used for.

Originally, the gravity separator comes from the mining industry, where it was used for separating dead rock from ore. We still have installations related to the mining industry, for example separating charcoal or zircon from silica sand, as well as for the separation of Vermiculite.

For many years the gravity separator has also been used for separating cork, which is the bark tissue of the cork oak. Cork is used for wine stoppers, as well as for a lot of other products like flooring, sound and thermal insulation, gaskets, etc.

The bark from the cork oak can be harvested every 9 to 13 years. The bark planks are dried naturally. The one-piece stoppers are cut out and the rest is ground down. The cork granulate is screened and calibrated in different fractions, each of which subsequently passes through a gravity separator. The finer fractions are used for agglomerated cork stoppers (for example in champagne corks) and gaskets; the coarser fractions are used in insulation and flooring.

Meanwhile, we already have quite a number of gravity separators used in gelatine production. The bones from slaughterhouses are delivered, crushed and heat treated. The gravity separator then separates the bones from the residual meat. Afterwards, the chemical process takes over and gelatine is produced for food as a gelling agent in yogurt, margarine, marshmallows, wine gums, etc., and for producing the shells of capsules used in the pharmaceutical industry.

In addition, Cimbria's gravity separators are beginning to find more and more uses in the recycling industry, for instance for the removal of textiles from rubber granulate in the recycling of car tyres. Another application in this field is the separation of copper from insulation in cables.

SILO INSTALLATION FOR SAND, CEMENT AND LIME

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Mira, Denmark, is a supplier of many different products to the building and construction industry. Strict requirements apply to these products. This means that silos and equipment must be produced to provide the best possible safeguard against cross-contamination of the different products.
The first delivery to Mira was in 1995, when Cimbria delivered a silo installation consisting of 12 silo cells. The installation has been extended on several occasions, and in 2008 a new plant was built which featured 15 silo cells and a capacity of approx. 1000 m^3.

Due to the heavy demand for Mira's products, 2014 saw the launch of a new project that was completed at the beginning of 2015. The plant consists of 12 silos with a total capacity of approx. 650 m3, machine section for mixing plant, steel structure for the roof and side cladding.
Cimbria has delivered similar silo projects to Mira's plants in Sweden, Estonia and Norway. For all plants, Cimbria has supplied different types of machinery, such as injection pipes, bucket elevators, belt conveyors and loading chutes.

FINE CLEANING EQUIPMENT TO EGYPT

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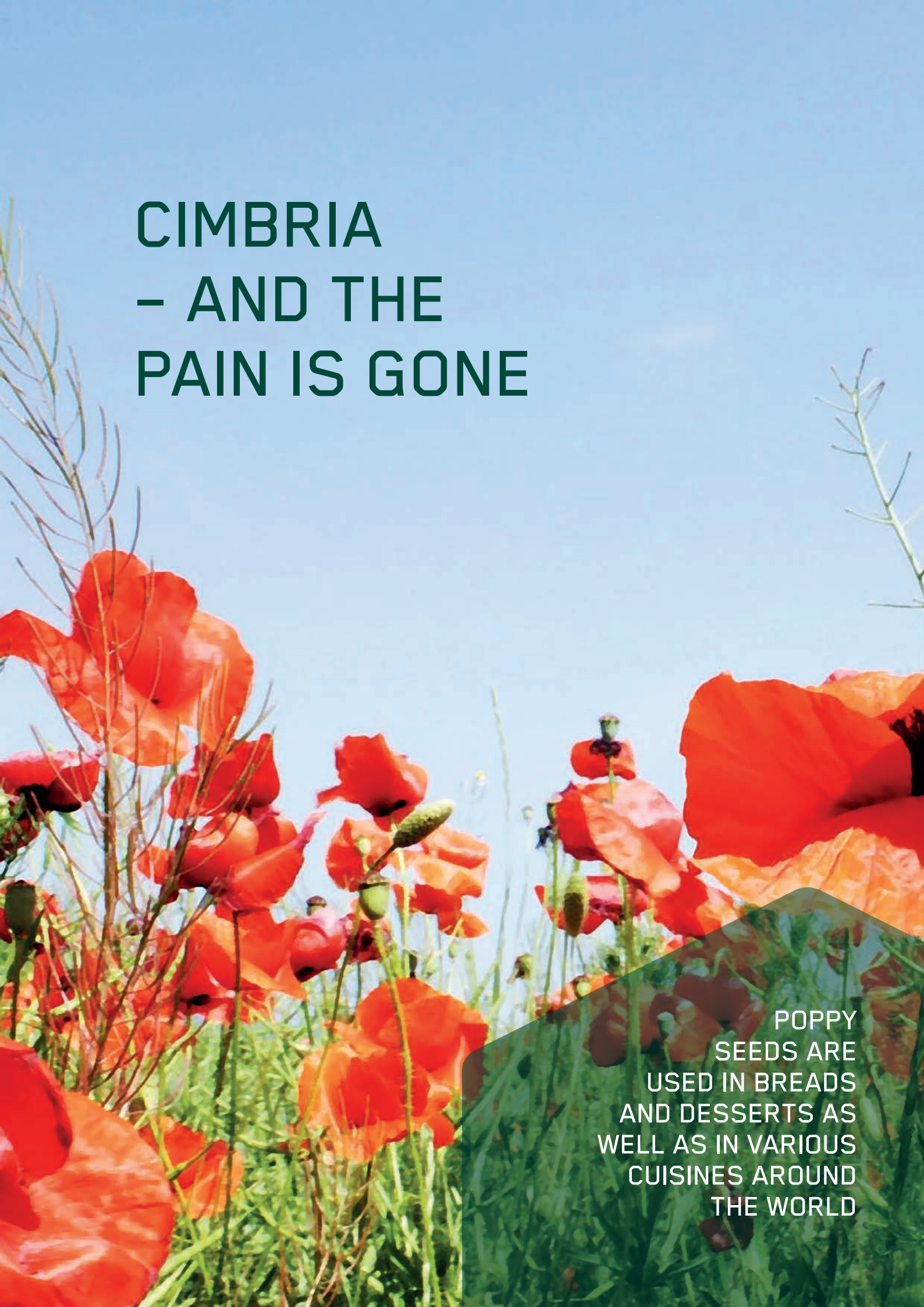
The private sector is growing rapidly in Egypt and during 2015 Cimbria has, among other things, supplied a fine-cleaning line to Alexandria Co. for seed processing with a Delta 168 and other processing machines for fine-cleaning and grading of soya before the product enters a vegetable oil processing mill.

Egypt has a huge production of herbs and spices, and the Cimbria fine-cleaning line has proved to be an efficient way of cleaning this product. During this year three lines have been sold and installed at El Seba, Royal and Mufaddal respectively for the fine-cleaning of herbs/spices and pulses.

For the Pioneer Overseas Corporation a maize cob transport system has been supplied, along with a seed processing line and related electrical control panel.

CIMBRIA – AND THE PAIN IS GONE



POPPY SEEDS ARE USED IN BREADS AND DESSERTS AS WELL AS IN VARIOUS CUISINES AROUND THE WORLD

POPPY SEED PLANT FOR SLOVAK MAK

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Poppy seed was first referred to as long ago as 4000 BC in ancient writings where its properties as a sedative are mentioned. Throughout history, several high-level cultures such as the Sumerians, Cypriots, Egyptians, Greeks and Romans have made use of the special ingredients of the poppy plant: some to help their children fall asleep; some to find joy.

Nowadays, pharmaceutical industries still have a great demand for such ingredients – namely its content of morphine, especially in the production of painkillers.

It is mainly the stem and the flower head of the poppy plant that contain morphine within all the microscopic milky channels that run through the plant. Once dried, this milky powder is further processed to produce medicine.

Because of the high value of these ingredients, harvesting of the poppy seed is performed very gently by cutting the plant into a few large pieces, which will then be gently sorted from the poppy seed kernels in the processing plant. The distinctive feature of this plant compared to recent installations for poppy seed is that there is particular focus on other parts of the poppy plant, not just the poppy seed itself.

Cimbria's representative in Slovakia, INGOTTO SPOL.S.R.O., led by Mr. Otto Straka, has installed a complete seed processing plant for 3 t/h poppy seed for Slovak Mak on behalf of Cimbria.

Of course, the size of the stems – which can be up to 20 cm in length – presents the first crucial task for Cimbria in terms of handling in the intake section. We thus supplied a special intake pit with tailor-made installations to ensure smooth and continuous reception and throughput to the pre-cleaning section, where we sort stems and flower heads in a cylindrical screener that also has the positive effect of fully emptying out the poppy seed kernels from the flower heads.

Subsequently, the stems and flower heads are gently transported to a flat storage area by belt conveyors. The same goes for light particles, which also contain morphine, from the suction systems of our Delta cleaner.
The poppy seed kernels then pass on to a gravity separator for cleaning the poppy seed kernels to a final purity of min. 99.9%, which results in an excellent final product mainly used for oil pressing and bakery products.

The installation in Velke Blahovo is concluded by an excellent aspiration system with filter units, automatic plant control unit and packing units for the final poppy seed kernels.

NO. 1 POPPY SEED PRODUCER IN THE WORLD

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Andreas Fröhlich - afr@cimbria.com

According to FAO's statistics, the Czech Republic is by far the biggest producer of poppy seed in the world, harvesting almost 13,000 tonnes per year. Czech producers are thus very aware of the need for first-class processing and cleaning equipment in order to maintain their position as the world's market leader in the poppy seed market.

The 5th complete poppy seed processing plant has now been installed by Cimbria in the Czech Rep. Our local representative, NAVZAS s.r.o., headed by Mr. Ing. Vladimir Naplava, carried out the entire planning and installation of the processing line for Zevos in Předboj, situated 20 km north of Prague.

First, a cylindrical screener separates stems and flower heads from the seeds, collecting them for subsequent use in the pharmaceutical industry. The poppy seed then passes through a fine-cleaner Delta and a gravity separator in order to ensure a final purity of min. 99.9 %. Exhaust air from the aspiration system with filter is recycled back into the building with a residual dust content of less than 1 mg/m³, thus creating an excellent working environment, even during the cold winter months. The entire plant is a steel construction laid out in a compact and clearly arranged manner, with optimum access being maintained for forklift trucks and operators.

THE LATEST CHALLENGE OF SEA CHROME

Michela Pelliconi - mip@cimbria.com

Colour sorting has become an integral and indispensable part of every grain and seed processing line, whether intended for food production or for other purposes.
In the past, the electronic sorter was used to separate contaminants and foreign seeds of distinctly different colour, whilst today stricter requirements mean we face more difficult and challenging sorting needs. However, the changing requirements of our modern world have led to the development of more and more sophisticated optical sorters.
Traditional colour sorters for separating impurities from grains and commodities using monochromatic cameras are still in use today, but new demands in seed production and ever-stricter human food standards have driven requirements for greater efficiencies in identifying impurities.

Cimbria has devoted itself to research and development of state-of-the-art technologies in order to achieve the best sorting performance with the ability to combine Real Full-Colour cameras with InGaAs and NIR technologies. This enables us to stay a step ahead of our competitors.

With the use of high-tech Full-Colour cameras and software capability able to work beyond the visible spectrum of the human eye, the SEA CHROME sorter can identify defective grains and particles, not only by contrast, but can separate unwanted grains or elements with similar colours, textures and shapes.

SEA CHROME technology is applied in very challenging situations for which the highest sorting accuracy is required. This means that identification of damaged kernels such as Fusarium, damaged grains or Deoxynivalenol (DON) is now possible, as well as the ability to distinguish between elements containing gluten and gluten-free cereals (maize, rice, buckwheat), in addition to grains that are difficult to separate with conventional monochromatic or bichromatic cameras, such as wheat from barley, and vice versa.
Demand for colour sorting equipment continues to rise in line with the tightening of an ever-increasing number of standards, and customers have responded by installing colour sorting equipment as a necessary part of seed and grain processing plants.

Worldwide, Cimbria SEA sorters are supplied to the agricultural/food sector, used to remove ergot and colour defects from cereals running in standard setup, and – when using InGaAs cameras –they are able to perform challenging separations perfectly, such as un-hulled from hulled grains.

Equipped with high-resolution full-colour RGB cameras and shape-sizing function, integrated SEA CHROME sorters sort impurities according to their geometric characteristics. In combination with the HSI software system which allows near-human eye vision, they have been successfully installed for the separation of soft wheat from durum.

The SEA CHROME optical sorter is able to satisfy the demands of the grain sector, in particular with regard to high-capacity features. Programme settings and adjustments are performed through user-friendly software which displays the real image picture directly on the sorter touch-screen, thus helping defective elements to be sorted.

SEA CHROME represents state-of-the-art optical sorting technology which is able to match the increasingly stringent requirements of the food commodities and seed industries, with the ability to detect and reject products having a similar colour but with different shades, thus ensuring that safety and purity requirements are met.

THE SEA CHROME OPTICAL SORTER IS AVAILABLE TO SATISFY DEMANDS OF THE GRAIN SECTOR IN PARTICULAR WITH REGARD TO HIGH CAPACITY FEATURES

CORN SEED FACILITY IN UKRAINE

Arne Mose Sørensen - ams@cimbria.com

Despite an economic downturn and continuing tensions in the Donbas region of Ukraine, investors can today be less concerned about political risks in Ukraine, and begin to focus instead on seeking new opportunities in the country.

Ukraine still offers considerable competitive advantages in agriculture

- 41 million hectares of good farmland, with 30% of the world's most fertile black soil
- Favourable weather conditions and good access to water
- Highly-skilled, low-cost labour force
- Strategic location between EU, Asia and the Middle East
- Government cutting through red tape & corruption by means of privatisation, elimination of permits and licences, liberalisation of the land market and strengthening protection of investors' rights
- Good current investment opportunities and current business projects for foreign investors. Cimbria has secured a number of projects currently under implementation.

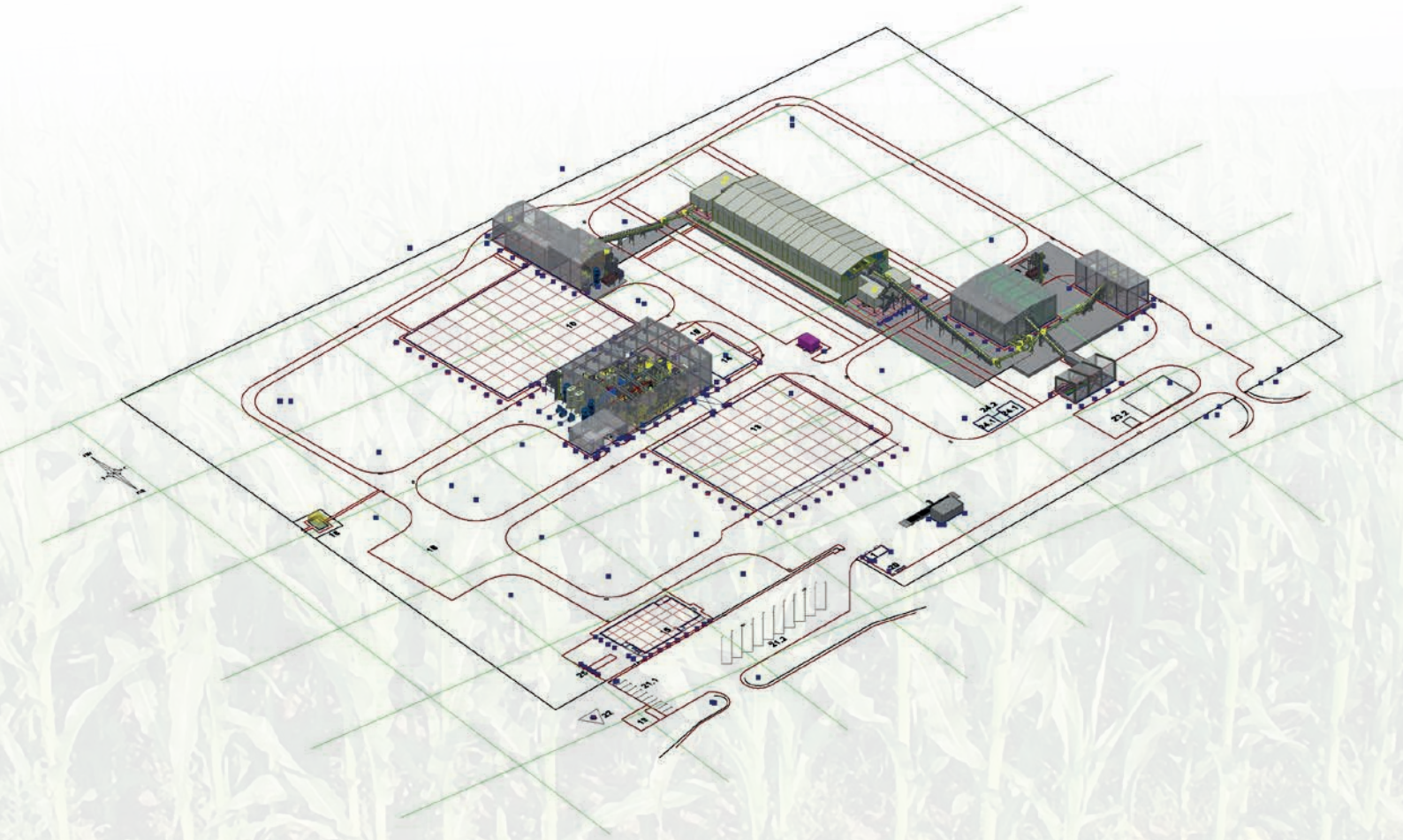
KWS Greenfield corn Seed plant in Ukraine

2015 has once again been a busy year for Cimbria, and we are honoured to have been awarded the contract by KWS for their New Greenfield Corn Seed Plant in Kamianets-Podilskyi, Ukraine. The project will contribute significantly to strengthening KWS' seed production activities in the country.

The project scope of works includes detailed design and engineering services in close cooperation with local civil engineering designers and contractors.

Procurement of equipment, logistical issues such as

- Preparation of Ukrainian documentation for customs clearance
- Supervision of construction works for weighbridge
- Ear corn reception
- Husking & sorting
- Double-pass dryer
- Shelling tower with intermediate container filling stations
- Conditioning line for fine-cleaning, colour-sorting, sizing, container-filling for intermediate storage



- Seed treatment line with blending bins, seed treater, seed dryer, formulation system for chemical recipes
- Bagging line, robot palletizer and wrapping of pallets
- Electrical and control system

Mobilization at the site started in Oct. 2015 (top soil removal). Manufacturing of equipment will continue through 2015 – 2016 and be delivered according to the agreed timetable
The project is scheduled for completion by autumn 2016.

Cimbria Scope of Works

Detailed Design – Engineering & Project Management

- Cimbria to provide engineering and design works for mechanical works and electrical works
- Onsite supervision
- Commissioning of equipment
- Onsite training of local operators
- Harvest assistance during 1st harvest season

Mechanical Works

- Weighbridge
- Green corn receiving system with walking floor, vibrating conveyor, belt conveyors, etc., to husker building
- Ear corn huskers, sorting tables, re-run conveyors, reject conveyors, compactor and transfer to dryer
- Dryer loading conveyor, incl. tripper car, shuttle conveyor with let-downs
- New double-pass ear corn drying bins with gas burners
- Shelling tower with sheller & pre-cleaner, filling stations for octa bins and cob transport to cob storage
- Conditioning line with octa bin and big-bag unloading system
- Installation of processing line, fine cleaner, colour sorter, screen sizers, octa bin / big-bag filling stations
- Treatment and packaging line with octa bin and big-bag unloading system
- Installation of intermediate blending bins with weighing system
- Re-bagging system
- Seed treatment, seed drying, chemical mixing and formulation system,
- Fully automatic packaging line with robot palletizer and wrapping system
- Complete white dust filter system and red dust filter system, including waste handling to waste bins, etc.
- MCC panels, PLC control, PC Control system, including all power and control cabling
- Undertaking site supervision and all local installation crew, staff training, first harvest assistance
- Full project documentation

MAJOR SEED PROCESSING IN NEW ZEALAND

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South Island Seed Dressing and Storage Co. Ltd., located in Ashburton, is situated in the rich and highly productive Mid-Canterbury plains area of New Zealand's South Island. It is a family-owned, independent, major seed processing business that includes purpose-designed and manufactured drying, processing, treating, coating, warehousing, packing and export operations, which also include a container loading and transportation facility to and from the shipping port facilities at Lyttelton and Timaru.

The following impressive statistics have been published for the Mid-Canterbury arable industry:

- 50% of world requirements for radish seeds
- 35% of world requirements for white clover seeds
- 33% of world requirements for carrot seeds
- 30% of world requirements for Bok Choi seeds
- 25% of all NZ feed grains
- 60% of seeds for growing pasture
  — underpinning a NZD $9bn export industry

South Island Seed Dressing and Storage Co. Ltd was founded in 1991 and now has eight specialized processing lines for ryegrass, field peas, garden peas, vegetable seeds, Asian vegetable seeds, linseed, cereals, clover and a range of brassica seeds. Most importantly, its more recent additions to its processing operations include a Cimbria Heid CC50 Centricoater, two Cimbria Delta type 106 Super Cleaners and a Cimbria SEA Chrome 3 with the first full-spectrum ultrahigh definition RGB cameras plus InGaAs cameras, which is a first in this region of the world. Another new Cimbria SEA Chrome 4 ordered by another key customer, Midlands Seed Limited, Ashburton, has been installed at the same site, mainly for processing marrowfat peas for a niche market and customers in Japan. Added to the list of equipment is a new Cimbria Heid Belt Sorter III that has also been ordered for installation commencing at the end of 2015. There are 45 full-time employees in this Ashburton operation, which includes its own engineers with experience in industry.

From left: Alessandro Carboni (teknchian) from Cimbria SEA and Brent Clarke, CEO hos SISD, Ashburton

The Prime Minister of New Zealand, John Key, accompanied by the press, recently visited and toured South Island Seed Dressing and Storage in recognition of the importance of this business operation for New Zealand's economy. It was reported that Mr. Key was suitably impressed by the technology incorporated in the latest Cimbria SEA Chrome 3 with its InGaAs cameras and sorting capability when CEO of SISD, Brent Clarke, explained the features of the sorter.

The company also has another processing facility in Tasmania, Australia – Tasmanian Seed Dressing & Storage Company at Carrick. This facility is installing a new Cimbria Heid Centricoater CC50, which is the first Cimbria machine for this plant – and hopefully not the last!

The seed industry in this region of the world is closely networked with other seed companies – both domestically and internationally – involved in exporting quality "Clean and Green" product, which explains the requirement for the best processing equipment and support available. This is underpinned by the fact that there are 19 relatively new Cimbria Delta Cleaners alone in the small region of Mid and South Canterbury.

SISD has been – and remains – a valued Cimbria Australia Pty Ltd and Cimbria customer since August 2009, and we are looking forward to a continued and valued customer relationship, as well as Cimbria business activities in both New Zealand and Australia.

Michael Symes, Midlands Seeds, standing next to Cimbria SEA chrome sorter

CONTINUED OPPORTUNITIES IN USA AND ARGENTINA

Darin Stutler - darin.stutler@bratney.com

With record harvests, 2015 continued to be an extremely busy year for Cimbria's partner in USA and Argentina: Bratney Industries. The agricultural processing and related industries has remained strong even due to lower grain prices. Using the Cimbria "complete approach" we were able to obtain strong results in non-seed sectors such as high capacity grain cleaning, edible food products, corn milling, and organic specialty grains. The launch of the Cimbria SEA color sorter line is in our 2nd year and we have had excellent results in the market with many successful installations.
Our core products of the cleaners, destoners, and gravity tables continue to be leaders in the market.

USA market:

The increased activities have resulted in several new orders for Cimbria projects all consisting of a large number Cimbria equipment. We are particularly proud of following orders on the American market:

- Large seed and edible projects that allowed us to procure a large order for Cimbria elevator leg and drag conveyors. The orders consist of a long row of Cimbria conveying products as e.g. 22 bucket elevators and 9 chain conveyors with special stainless steel configurations. In addition to this, the orders include cleaning systems consisting of Delta screen cleaners, Combi cleaners, optical sorters, and gravity separators.
- Completion of high capacity grain cleaning system for export including a Cimbria Mega Cleaner with indented cylinder separator units.
- More than 30 Cimbria Delta Cleaner installations ranging from green coffee bean projects to pre-cleaning for dairy feed application.
- Substantial Cimbria SEA color sorter installation base in key industries with expansion into industrial markets for salt processing and plastics in addition to food based products.

Argentina market:

For the Argentine market following orders are to be mentioned:

- Completion and commissioning of a large seed corn complex with key Cimbria processing equipment. The plant installation consists of Delta super fine cleaners, indented cylinder separators for seed sizing, SEA Chrome colour sorter and Centricoater coating system for batch treatment.
- Launch of Cimbria SEA color sorter product line with our first installations and start-ups. Key installation in Argentina for long-time Cimbria client.
- Automated Cimbria gravity table system development and installation. The first for South America utilizing a GA210 unit.
- Likewise, there has been a continued growth in the Cimbria Centricoater product lines.

LARGEST SEED CANOLA PLANT IN THE WORLD

Mark Metcalfe - *mmetcalfe@nexeed.ca*

Cimbria and Bayer CropScience have successfully completed many projects in the past. In 2014 and 2015 a major expansion of Bayer's seed canola processing facility in Lethbridge, Canada, was planned and executed. Prior to this expansion, the facility had one seed cleaning line featuring Cimbria cleaning equipment. This existing line provided Bayer, along with Canadian Cimbria dealer Nexeed Equipment Solutions, with a clear pattern to replicate on a larger scale to meet the requirements for seed quality and a capacity of 15 TPH on the new cleaning line.

The new cleaning line features a Delta pre-cleaner, two Delta Super Cleaners, three Cimbria Heid gravity separators, plus an additional Cimbria Delta Super Cleaner for screenings reclaim, which minimises the loss of good seed. Nexeed and Bayer collaborated on process flow and facility layout planning. Cimbria RS type drag conveyors, bucket elevators and vibrating pan conveyors were installed to handle seed conveyance, and SU type screw conveyors collect and convey screenings. The use of Cimbria conveying equipment enabled an efficient design, as the facility was erected at ground level, with the Delta cleaners placed on the floor rather than on elevated platforms.

In addition to the new cleaning line, Bayer simultaneously invested in a new lab-sized R&D facility, installing Cimbria Delta cleaners in line with Cimbria Heid lab-scale indent cylinder and gravity separators. This small-scale line will enable various tests and trials for many years to come.

During construction of the facility, the building housing the cleaning line also underwent expansion. Included in the block walls was a time capsule, which included letters from both Nexeed and Cimbria, and signatures of people involved in the project.

LOADING CHUTES FOR MAERSK TERMINAL IN PERU

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Cimbria received an enquiry for loading chutes from one of our Chinese dealers. The project company behind the enquiry was Nantong Rainbow Heavy Machineries Co. Ltd. (RHM China), which explained that the project was being carried out on behalf of Maersk for a terminal at the Port of Callao, Peru.

The loading chutes were to be used for loading fertilizer into open trucks at a capacity of 800 t/h, and for loading grain into open trucks and onto a band conveyor at a capacity of 915 t/h. The chutes were due to be installed under a mobile hopper system used when unloading ships. The specifications of the chutes were very strict, containing demands for all stainless steel execution, ATEX rating, and a rather complex control/safety system which included a plug-in facility due to the mobile nature of the hoppers.

Following the initial enquiry, a process of clarification began, whereby the exact execution of the loading chutes was specified and the final contract was signed and stamped.
The final configuration of the Moduflex loading chutes was made up of four A650F/10s in AISI 304 with integrated 18 m2 filter and dual-purpose outlet (loading into trucks and loading onto conveyor). The chutes are approved for handling food according to EU directive 1935/2004 and are approved for ATEX zone 20/22. In addition, there are two N500F/7s in AISI 304 with integrated 18 m2 filter for loading into open trucks. These chutes are also approved for ATEX zone 20/22. All the filters are supplied with an explosion relief system as required by the customer.

The loading chutes were assembled, tested and readied for shipment. Uniquely, the chutes were first shipped to China, where they were unpacked and pre-mounted on their respective hoppers. After undergoing a functional (dry) test, the loading chutes were re-packed and shipped to the site in Peru. After installation at the terminal, Cimbria was contacted for commissioning of the loading chutes, which took place in June 2015.

MULTI CRUSHER – A WELL-KEPT PUBLIC SECRET

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For many years, the multi crusher has been somewhat like James Bond, 007: known by only a few people, but operating with success in a number of countries. This success, however, has led to the decision to go public with this "secret" machine.

The multi crusher was originally developed for crushing fertilizer that "fuses" together in large lumps during processing. Over time, it has been demonstrated that the multi crusher can be used for several other products, for example for breaking down shells from clams, crabs, etc., for use in the fish feed industry. The multi crusher can be implemented at an early stage in a conveying installation to protect subsequent equipment in a processing line. Savings made on not having to replace worn parts mean that there will be a fast pay-back time on the multi crusher, as well as greater lifetime for the related processing equipment.

With its robust construction, variety of application options and service-friendly design, the multi crusher is ideal for sectors that handle large lump products, such as power stations, food ingredients in industries/slaughterhouses, feed and fish food plants and the sphagnum and fertilizer industry. A wealth of experience with different products has been gained from several references.

Testing of products

Cimbria offers a no-obligation test of customer products in our own production facilities. During the test the specific capacity and ampere consumption are measured. The crushed material will be returned to the client for inspection and approval, thus providing a firm basis for making a decision with regard to purchase of the equipment.

DRYERS FOR FOOD GRAIN IN KAZAKHSTAN

Franz Franer - ffr@cimbria.com

Agro-company TNK from Kazakhstan, which has its headquarters in Astana, is one of the major exporters in this sector in Kazakhstan. In 2012 TNK integrated Cimbria equipment for seed and grain processing in 5 of 6 locations. Only the drying equipment was pending in terms of completion of the entire process.

Kazakhstan is a member of the Eurasian Customs Union together with Russia and Belarus. Apart from the obvious difficulties related to the Russian crisis, it is also a challenge to successfully import European equipment into Kazakhstan. The Kazakhstani Tenge was also heavily affected by the massive devaluation of the currency, in a similar manner to the Russian Rouble. As TNK successfully exports its products to Europe and receives payment in Euros, it made it possible to go for high-quality equipment in order to ensure the quality of their export products. For Kazakhstani companies it is always a tricky issue to decide when it is the right time to install drying equipment: One year the Kazakhstani climate is very dry and does not require significant drying after harvesting, whilst the following year can be the complete opposite.

This year TNK finally decided to equip 3 locations with dryers and to renew the 6th location with cleaning equipment. Cimbria has engaged agro-company TNK as a very important long-term partner in the region. By installing the 5 processing lines in 2012, Cimbria was able to prove its performance and ability to the full satisfaction of the client. This was subsequently rewarded by an order for 3 ALG-25 dryers, cleaning and conveying equipment.
The ALG-25 is equipped with a highly efficient industrial indirect diesel-fired heating system. The heat exchanger promises high performance with less loss of energy through the chimney. Cimbria's heat exchanger with a possible heating temperature of 75°C can perform in lower ambient temperatures without switching into direct-fired mode, which is a NO-GO in the food industry.

The three dryers were commissioned successfully in time for the harvest season.

THE MOST CHEERFUL STORAGE PLANT

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At our customer, ART-09 in Zaporizhzhia, south-eastern Ukraine, the machinery building, service and intake area are painted in bright colours so that they catch your attention immediately and you cannot help but smile! According to ART-09, the “rainbow” design has been executed in order to raise the spirits of the local people during difficult times for Ukraine.

The storage plant was commissioned this autumn and designed for the safe storage of wheat and sunflower, which are the main crops in the region. In addition, the storage plant will be used as raw material storage for production facilities, as our client ART-09 has launched a mayonnaise production line.

This is the first stageof the project and includes:
2 silos with a capacity of 6,000 tonnes each and equipped with Cimbria Unitest Protector temperature monitoring system and aeration system.

Conveying equipment with a capacity of 120 tph. Control system for operating both phases one and two (adding 8 silos + dryer).

We are looking forward to the second stage of this optimistic project.

PLANT FOR LEGUMES, GRAIN AND SPICES

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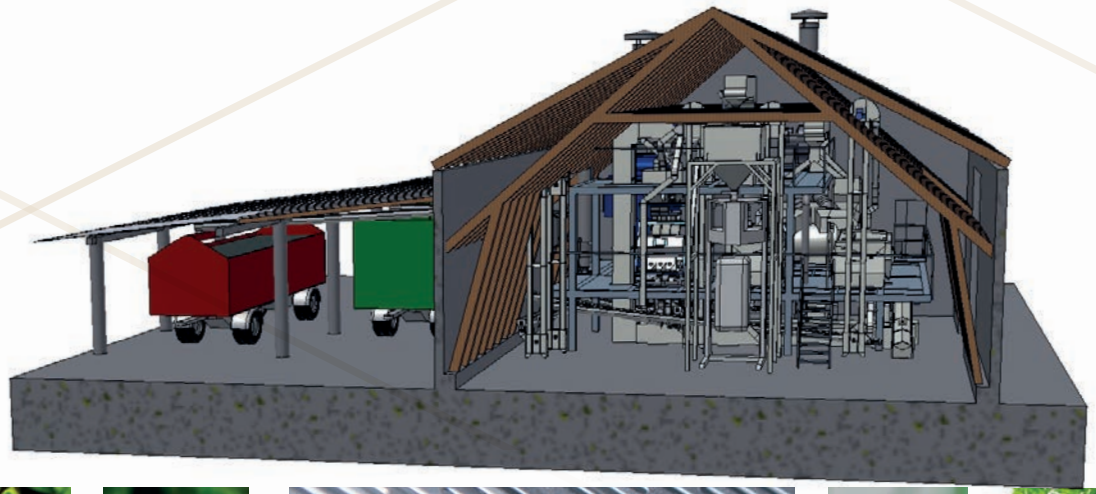
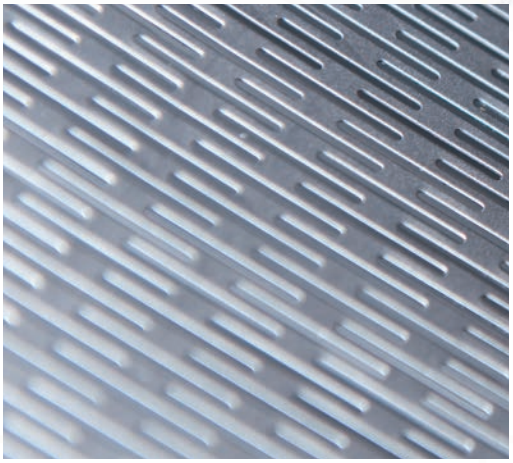
Saatguttechnologie Kilian, a very ambitious private company in the east of Germany situated between Leipzig and Magdeburg, has invested in a complete seed processing line from Cimbria, mainly for legumes, grain and spices.

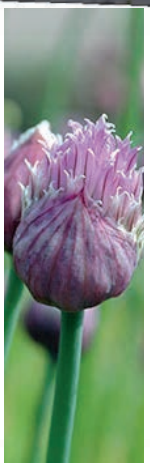
The plant is entirely equipped with pendulum bucket elevators and belt conveyors for very gentle handling of fragile legumes such as peas and soya beans. The intake pit is prepared for backward tilting of tractor-trailers. For pre-cleaning, a straw separator is combined with a wind sifter. Subsequently, the product passes through a Delta 107 with its generous screen area, flexible screen diagram and first-class suction systems. Final cleaning is then performed by means of an indent cylinder, two gravity separators and a colour sorter SEA Next with 3 channels. The plant thus achieves excellent final purity at a capacity of 10 t/h.

A special challenge in this project was to fit the entire processing line into an existing, traditional barn with a rather low and distinctive wooden roof construction. This meant that every centimetre in height had to be utilized in an optimum manner.

The client's personnel participated in the complete installation of the plant, thus gathering a lot of knowledge about the machines during the assembly period, which will enable them to carry out most of the maintenance themselves in the future.







SILO PLANT FOR RWZ IN LAUTERBACH

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The German market is one of the most competitive in the world, with a lot of domestic and foreign suppliers trying hard to outperform each other in the grain-project business. Cimbria succeeded in winning the order for a 6,350-tonne silo plant for RWZ in Lauterbach this spring.

The grain enters the plant through a truck intake pit with chain conveyors for emptying. A bucket elevator then feeds the pre-cleaner, which is a pure wind-sifter in this case, ensuring an absolute minimum of downtime for cleaning when changing varieties. From this point, the grain passes either to a mobile batch belt dryer via a 350-tonne wet silo with hopper, or directly to one of the 3 round silos with flat bottoms, aeration system and rest emptying screw. Each of the 3 main silos has a storage capacity of 2,000 tonnes, meaning a total holding volume of 6,350 tonnes for the entire plant including wet bin.

Gentle and dust-free discharge is realised with a Moduflex loading chute, suitable for both open lorries and silo trucks. The entire plant is matched to a conveying capacity of 150 t/h and aspiration system with filter, whilst full assembly of the plant was part of our scope of supply.

RWZ is the 3rd biggest operator amongst the agricultural cooperatives on the German grain market, with more than 200 facilities and serving approximately 70,000 farmers. The current plant is situated around 100 km northeast of Frankfurt in beautiful rolling countryside right in the heart of a very fertile agricultural area.

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