

A/S Cimbria

Faartoftvej 22
P.O. Box 40, 7700 Thisted
DENMARK
Phone: +45 96 17 90 00
holding@cimbria.com
www.cimbria.com

CIMBRIA NEWS 2016/17



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**YOUR
PRODUCT
OUR
KNOWHOW**



CIMBRIA NEWS 2016/17

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 of our 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 became a member of the AGCO Group in September 2016. As a member of the AGCO Group, not only have we expanded our regional footprint, but we are now also able to fulfil our customers' needs and demands with a broader product portfolio. The AGCO Group boasts other high-quality brands, such as GSI and Intersystems, which specialise in high-performance equipment.

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, with our main markets being grain, seed, feed and food. Cimbria has held a leading position in the seed segment for many years, in addition to which, as part of the AGCO family, we are even more at the forefront of the grain segment. Our equipment and plants are also used in other markets such as breweries, malting houses, fertiliser 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 for many years 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, wishes and demands. This is why Cimbria has built up competences and skills over the decades within crop science and agricultural logistics that 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 dependable partner for customers that are looking for their projects to be completed on time, within budget and which deliver the maximum return on their investment. Cimbria's knowledge of agricultural production and processing is applied as part of our services to optimise plant performance and to ensure that operating staff are trained to utilise the full potential of a Cimbria product or solution. With a shared objective between us and our customers, this crystallises into our values of "Solutions Together".

Our vision continues to be that Cimbria will maintain and further develop our position as an innovative and leading global 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 dedicated employees, a number of Cimbria and AGCO 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 · Saudi Arabia.

Cimbria agents 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 · Spain · Sweden · Taiwan · Turkey · United Kingdom · USA · Vietnam.

A GLOBAL LEADER IN GRAIN AND SEED



Lars Nørgaard - lno@cimbria.com

In 2016, Cimbria became part of AGCO - Your Agriculture Company

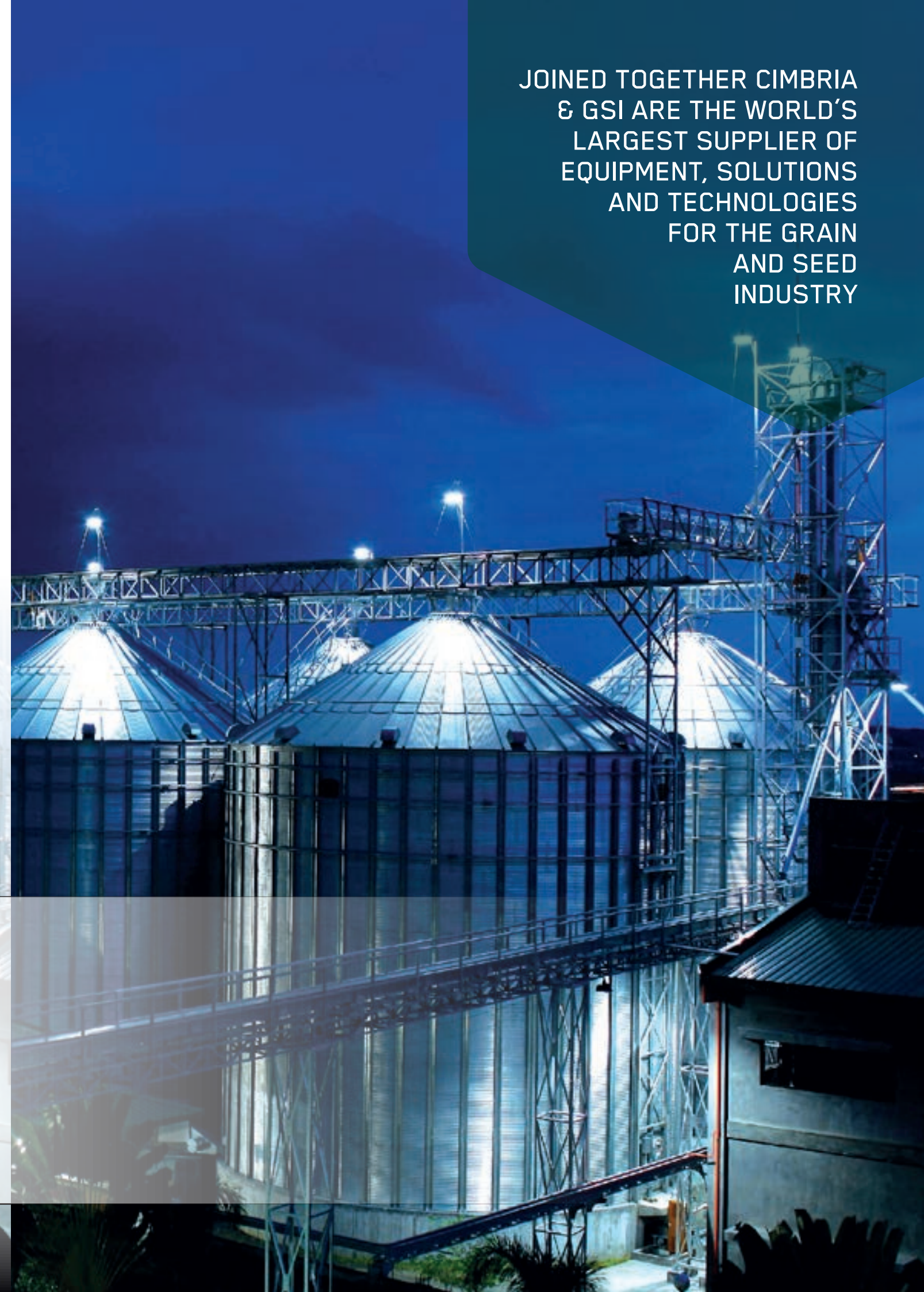
AGCO is a global leader in the design, manufacture and distribution of agricultural machinery. It is listed on the New York Stock Exchange and has an international customer base. AGCO's products and solutions are distributed globally through a combination of approximately 3,100 independent dealers and distributors in more than 140 countries. AGCO's products are sold through five core machinery brands: Fendt, Massey Ferguson, Valmet, Challenger and GSI, a brand that operates in Cimbria's business sector.

The history of GSI began in 1972 in a garage where Craig Sloan, along with 3 workers, began manufacturing a wide variety of corrugated steel storage bins.

Today, GSI is the world's largest manufacturer of steel farm bins, commercial storage grain bins and grain silos, including grain bin sweeps, spreaders, chain loop systems, commercial bucket elevators, conveyors, support towers and catwalks. The GSI product range also includes a wide range of equipment and technology for the poultry, swine and fertiliser industries.

Ever since the establishment of Cimbria in 1947, our extensive products and services have supported the cleaning, sorting, treating, drying, storage and conveyance of grain and seed through the development, manufacture and installation of individual machines, customised systems and complete turnkey plants, as well as project management and process control consulting.

In combination, Cimbria and GSI make a perfect match to become the world's biggest and most technologically advanced supplier of products and systems for the grain & seed industry. With 20 production facilities on 5 continents and local sales representatives worldwide, we have an unmatched global footprint and global reach. The combination offers a product assortment that is second-to-none, enabling us to provide complete projects based on equipment that is developed and manufactured in-house.



JOINED TOGETHER CIMBRIA
& GSI ARE THE WORLD'S
LARGEST SUPPLIER OF
EQUIPMENT, SOLUTIONS
AND TECHNOLOGIES
FOR THE GRAIN
AND SEED
INDUSTRY

BEST IN CLASS FULL-COLOUR SORTING

Michela Pelliconi - mip@cimbria.com



The demand for ever-better sorting performance on challenging applications has grown exponentially in recent years, and SEA Full-Colour is widely acknowledged as the best technology on market.

What are the benefits of Full-Colour technology?

What are the roles of NIR and InGaAs systems?

How can a highly sophisticated vision system be provided in a user-friendly way?

These are just a selection of the questions posed by our customers, who need to recognise and choose the right sorter for increasingly exact sorting tasks.

Our mission is to develop a diversified choice of optical sorters, exploiting the latest full-colour technology and thus becoming an “irreplaceable” industrial device in the cleaning process.

Thanks to its relentless technological development and broad experience in the field, Cimbria is able to present the new series of SEA products, again setting the highest standards for any existing electronic sorting system available worldwide.

The latest sorting solutions are SEA CHROMEX, SEA TRUE and SEA HYPERSORT, which each cover a specific segment of the market.

SEA CHROMEX – Full-Colour Sorter

SEA CHROMEX represents Cimbria's top of the range using Full-Colour Technology, with the option of combining NIR and InGaAs inspection systems.

SEA CHROMEX is able to determine and sort the slightest differences in colour, shade and shape.

The use of the latest Full-Colour RGB 4096 pixel cameras ensures the highest optical resolution - 0.06 mm – available on the market. Shape-sizing function is integrated into the system.

Besides the detection of colour differences, the use of NIR cameras optimises the separation of foreign bodies that have a similar colour to conforming products, such as stones, sticks, glass, plastic, etc. InGaAs technology focuses on the removal of defects which cannot be visually distinguished, such as seeds affected by sclerotium or mycotoxins, the separation of hulled and unhulled grains or removal of shells from nut kernels.

SEA CHROMEX is the ideal solution for challenging applications and ensures the highest purity and efficiency, especially for the strictest food hygiene and health requirements.

SEA TRUE

Reflecting its brand name, Cimbria has introduced this sorting series whose main feature is the use of “TRUE” Full-Colour sorting

technology applied to standard applications, such as milling, coffee and nuts.

SEA TRUE reaps the benefits of its Full-Colour SMART cameras, featuring red, blue and green (RGB) sensors.

This “true” full-colour system can work alone or in combination with NIR and InGaAs cameras, according to the specific sorting task.

By means of photographic acquisition, the image processing system compares the elements to user-defined accept or reject elements, whilst the vision system “sees” the product almost like the human eye.

SEA TRUE has been conceived to complete the Cimbria SEA product range for the high-end market segment, whilst maintaining competitive pricing and keeping investment to a minimum.

SEA HYPERSORT

SEA HYPERSORT is the first SEA optical sorter operating in the non-visible spectrum through its hyperspectral NIR optical system, combined with the latest full-colour technology.

The Hyper Spectral Near-Infrared Sensors enable identification and rejection of contaminants with the same colour as conforming elements, but with different chemical properties.

SEA HYPERSORT boosts the sophisticated portfolio of Cimbria SEA sorting solutions, recognised in the market as a leader of multiple food and industrial applications.

EXAGON

Besides the unceasing evolution of high-tech sorting machines, Cimbria has also focused on the creation of a new user-friendly and intuitive graphic interface.

Now, even less-experienced operators can set and adjust the sorter in an easier and faster manner, thanks to the EXAGON's appealing graphics and simplified screens.

EXAGON has a customisable homepage with widgets that the customer can change at anytime according to his needs.

One of the most important advantages is the possibility for the operator to monitor the machine status through its synoptic.

The use of the same sorting recipe on multiple SEA units is now possible, thus enabling a single database detailing important production aspects and real-time statistics.

EXAGON enables easy and fast programming and control of the SEA CHROMEX and SEA HYPERSORT as the most sophisticated sorting technology on the market.



SEA CHROMEX



SEA TRUE



SEA HYPERSORT



Exagon, the new intuitive graphic interface

CISE IV – SHARING KNOWLEDGE

Lars Nørgaard - lno@cimbria.com



Cimbria International Sales Event, CISE, is held every second year at different geographical destinations. This seminar is attended by delegates from our extensive network of dealers and agents, as well as representatives from our own numerous companies. In 2016, CISE was held in Bologna, Italy, from 5th -7th October. More than 155 delegates and 60 of their partners from more than 40 countries and 6 different continents were gathered to see and hear the latest news and to exchange commercial and technical experience across business disciplines and geographical borders.

“Sharing Knowledge” was the seminar’s overall theme, whilst each of the three days of the seminar had its individual headline. The first day was designated “Prepare to Win”, and this day commenced with a presentation and status of the results that Cimbria has generated, expectations concerning the future, as well as a number of the new strategic initiatives that are always in the process of being implemented in an international and proactive company. This was followed by a presentation of Cimbria’s new owners, major American group AGCO, with an introduction of the group including GSI, whose product portfolio complements that of Cimbria. With Cimbria and GSI as a starting point, focus naturally turned to the opportunities the new ownership structure offers for the companies individually and for the AGCO group as a whole.

Selected case stories from all over the world were presented with a wide range of interesting themes. This was followed by a chance to participate in break-out sessions involving various topics, where participants had the opportunity to participate actively and obtain a deeper insight into subjects that were particularly relevant for those concerned.

Under the headline of “The Winning Technology”, the main focus of day 2 was on new technology in products and processes. The day’s programme was held at Cimbria’s production facilities in Imola, which is home to Cimbria Heid Italy and Cimbria SRL. There was a chance here to take part in a number of different technical seminars. An exhibition had been set up in which a major cross-section of GSI and Cimbria’s many products and technologies were presented, in addition to which guided tours of the highly specialised production were organised.

“The Will to Win” was the headline on the third and final day. The main theme was further presentation of a number of exciting new products and the many benefits that they bring to the market, both now and in the future.

During each of the days, extra time was allotted such that delegates could hold individual meetings. This was exploited to

the full, and in meeting rooms a wide range of exciting subjects were discussed, plenty of experience exchanged and numerous agreements reached.

CIMBRIA AWARD WINNERS

As always, CISE IV was also the setting for presentation of the “Cimbria Awards”, which celebrate some of the many excellent results and performances throughout sales. Cimbria Awards are divided into 3 categories:

Cimbria Sales of the Year: This award is granted to a person or organisation that has secured an important order. This may mean a particularly big order, an order of highly significance in terms of its reference value, or an order from a new customer or customer segment.

The nominees were Arne Jensen (Cimbria Unigrain, DK), Peder Steen Christiansen, (Cimbria Bulk Equipment, DK) Arne Mose Sørensen (Cimbria Unigrain, DK) and Sami Salaheldin (Cimbria

Egypt) in collaboration with Henning R. Bukh (Cimbria Unigrain, DK). The latter team were the deserved winners for their combined efforts in connection with the sale of Cimbria’s hitherto biggest order of 23 silo installations for wheat in Egypt.

Cimbria Dealer of the Year: This is awarded to a dealer or agent that has generated noteworthy results and development in sales and collaboration with Cimbria. The nominees in this category were Bratney Companies (USA), Dotnuva Baltic (Lithuania) and Buttmer Polska (Poland). For continuous positive development and a large number of orders, in particular in the corn sector, the winner in this category was Dotnuva Baltic.

Cimbria Honourable Award: This award is granted in recognition of prolonged and unique efforts with regard to sales of Cimbria products and technologies. In this category the nominations remain secret, but the award very deservedly went to Henning Roslev Bukh (Cimbria Unigrain) for his tremendous and tireless efforts for Cimbria.

CISE IV

- sharing knowledge



Cimbria award for Dealer of the Year: The UAB Dotnuva Baltic company. From left: Mr. Darius Jaloveckas, Managing director, Mr. Mindaugas Veiveris, Head of projects implementation department, and Mr. Tadas Juška, Project Manager

Cimbria award for Sales of the Year: From left: Mr. Henning R. Bukh (Cimbria Unigrain, Denmark) and Mr. Sami Salaheldin (Cimbria Egypt)

From left: Mr. Lars Nørgaard, Sales Director, AVS Cimbria, Cimbria Honourable Award winner: Mr. Henning Roslev Bukh Cimbria Unigrain, Denmark, and Mr. Søren Overgaard, CEO, AVS Cimbria



SESAME SEED INSTALLATIONS

Ernst Halper - eha@cimbria.com

Wieland Bogdan - wbo@cimbria.com



Sesame seed – plenty of Cimbria installations for this fantastic crop

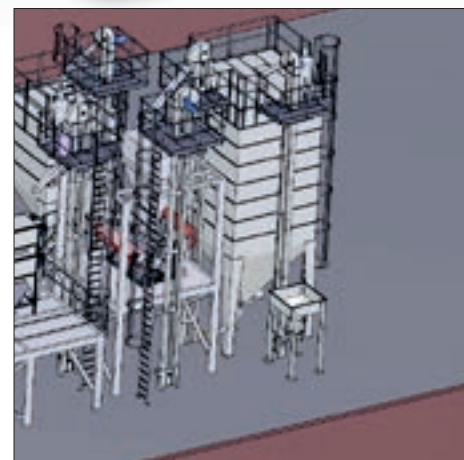
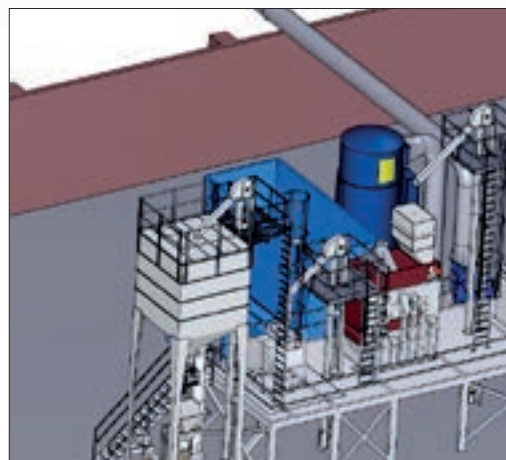
Sesame seed is a crop which is facing rapidly increasing demand due to the fact that it is a well accepted ingredient for bakery products, an excellent commodity for oil pressing and also extensively used for pharmaceutical purposes. It is rich in unsaturated fat, and thus lowers cholesterol levels and helps to prevent coronary heart disease. As a result, the number of Cimbria sesame seed processing plants in Africa, the Middle East and Asia is steadily growing.

Lately, Olam, one of the biggest traders worldwide, invested in 2 plants from Cimbria to process sesame seed. These plants will be installed in Nigeria and Ghana at the beginning of 2017. Another line has just been agreed with Rushdi Food Industries in Israel.

Sesame is one of the oldest spices known in the world and definitely the oldest oil crop.

Initially growing wild in South Asia, sesame seed was cultivated from around 3000 BC. Nowadays, it is planted mainly in tropical and subtropical areas. The no. 1 producers are India and China, with further important suppliers to the world market being the Middle East and Africa, as well as parts of Central and South America.

Around 30 Cimbria processing plants for sesame seed built within the last 15 years make a great contribution to the worldwide supply of sesame seed, the tasty ingredient that we see and eat almost every day.



Intake of seed through box tilter or intake pit



Passing through a Centricoater before conveying and packaging

CIMBRIA EQUIPMENT TESTING AT BASF

Andreas Fröhlich - afr@cimbria.com



Testing of new Seed Solutions products on Cimbria equipment in BASF's R&D station

BASF is one of the world leaders in the field of Seed Solutions, i.e. inventing and producing solutions for application on seeds based on chemicals, biologicals, inoculants and functional coatings, with the aim of complementing these services in the future. It is thus an honour for Cimbria to be supplier of core machinery for their brand new R&D centre in the famous Limburgerhof in Germany.

An important step in the process of developing new seed treatment products is of course the testing of their application on various seeds. BASF is therefore using Cimbria's Centricoater, as well as a Cimbria jog conveyor dryer for subsequent surface drying.

The entire operation is done from "box to box", meaning that the seeds enter the plant via an intake pit or box tilter. They are then conveyed to the Centricoater by a pendulum bucket elevator, and, after passing the Centricoater and the jog conveyor dryer, the intake of seed through box tilter or intake pit they again enter a pendulum bucket elevator for final conveying to the container and big-bag filling station.

Gentle and genuine product handling, precise and reproducible application and sensitive drying, as well as thorough project management and after-sales service, have been the main arguments behind BASF putting the entire project in Cimbria's hands. The equipment delivered also includes an aspiration system with filters and complete PLC control unit.



Jog conveyor dryer for surface drying

STATE-OF-THE-ART ALFALFA PLANT IN USA

Darin Stutler - darin.stutler@bratney.com



In early 2015, Bratney Companies were approached about the possibility of a new alfalfa plant for Forage Genetics (a division of Genex Harvest States based in Minnesota) located in Nampa, Idaho. Preliminary design and engineering was done with local plant personnel and the Bratney staff based in our nearby Boise, Idaho, office. After coming up with several variations and a budget that met approval, work began on building the plant in August 2015. During this process the client realised the need for quality processing equipment that would optimise separation for their high value seed that has seen large growth and demand in the North American market.

After careful review of seed processing equipment, the client proceeded with two Cimbria Delta cleaners Model 107, two Cimbria Heid gravity tables model GA210 and two model GA110. This choice of equipment was based on high-quality equipment

design along with a company which could provide all solutions from one source with dedicated technical and service staff. This encompassed the bulk of the processing line, except for some existing processing equipment.

During this design phase we were also able to present the merits of the Cimbria low-speed elevator legs and their design features for easy access and clean-out.

After an in-depth review, the client decided to make this a "Cimbria plant" and proceeded with the 26 model EC-5 and ED-10 elevator legs to complete the plant.

Manager of the Nampa facility, Ken Durrant, states: "The Bratney Group and Cimbria products exceeded our expectations, giving us a modern state-of-the-art facility as we grow our alfalfa business in the USA."

In July 2016 the plant was commissioned and is exceeding promised capacity and quality.



CIMBRIA EQUIPMENT FOR SYNGENTA TEST FACILITY

Darin Stutler - darin.stutler@bratney.com



Bratney Companies provide systems for new Syngenta chemical testing facility in Stanton, Minnesota

In 2014, discussions began with Syngenta to provide coating systems for their new test facility in Stanton, Minnesota.

The goal was to provide coating and drying equipment used by Syngenta end users (seed companies and farm retailers) to understand how their formulations work in production facilities and real-life handling of the seed once chemically coated.

Syngenta has always been a long-term partner of Cimbria products and decided to go with a Cimbria system. Bratney was chosen to handle scope details of the equipment and the installation, as well as long-term after-sales service of the key Cimbria systems (and ancillary equipment).

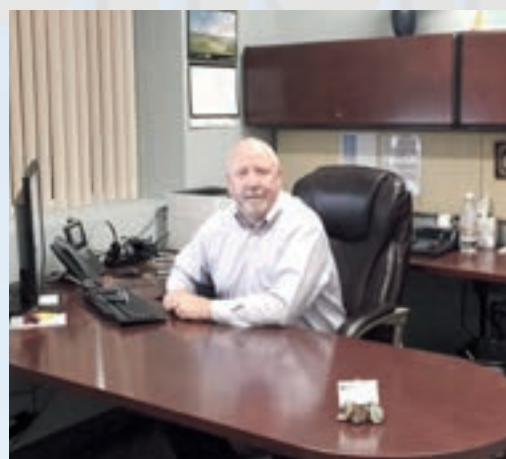
The scope consisted of:

- Retasking and upgrading an existing Centricoater CC20 with the latest control systems
- Cimbria Centricoater CC150 batch treater
- The first Cimbria JCD 1250/3+1 jog dryer and belt feeder in North America, with burner control system and automated control system for gentle drying of seed
- 18 Cimbria pumps with mass flow meters in the chemical application room – featuring a custom automation system taking chemical on-demand to the treater systems
- Cimbria pump system for the chemical mixing and blending room

The plant was successfully commissioned in August 2016 and provides a solid reference for Cimbria coater and dryer systems in North America.



Cimbria Gravity tables and screen cleaners



Area Operations Manager, Mr. Ken Durrant,
Forage Genetics International



Cimbria bucket elevators



Cimbria mixing system



Cimbria jog conveyor dryer and belt feeder with
burner control system and automated control
system for gentle drying



Cimbria Centricoater CC150 batch treater

THE PERFECT MATCH - CIMBRIA AND GSI

Andreas Fröhlich - afr@cimbria.com



Brevis Bulgaria – Connecting excellent storage plants from GSI with precise sorting and cleaning plants from Cimbria

One of our many loyal customers in southeast Europe, Brevis from Dulovo in the northeast of Bulgaria, recently updated one of their Cimbria installations, namely their pumpkin seed processing plant built in 2007, with further Cimbria machinery to increase capacity due to growing demand. This is also reflected in their investments in further GSI storage facilities in recent years. When talking to Nikola Popov and his son Hristo, owners of Brevis, one can clearly see that their main focus is on high

quality. This applies to their extensive product portfolio of crops, in addition to their machinery and plants for harvesting and post-harvest processing systems.

On 3 different sites, Brevis receives, pre-cleans and stores its sunflower harvest in GSI- storage installations. The total holding capacity for sunflower in round silo bins is about 50,000 tonnes, which is equivalent to a storage volume of around 120,000

tonnes of wheat! A further 35,000 tonnes can be held in flat storage.

Cimbria's partnership with Brevis started in 2007 with the erection of a pumpkin seed processing plant, followed by a huge sunflower fine-cleaning and peeling plant in 2013. The

permanent expansion of Brevis' business across Europe and the United States has now enabled Brevis to further increase its processing capacities by adding a new Cimbria intake and pre-cleaning section to their pumpkin processing line, as well as further fine-cleaning machines to the existing line for a capacity upgrade.



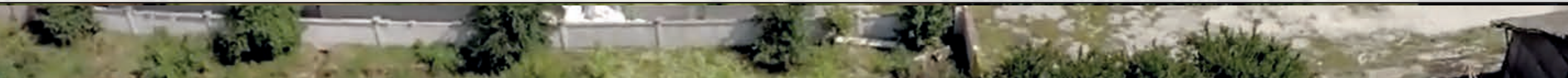
Brevis headquarter, Dulovo in the northeast of Bulgaria



GSI storage facilities



Cimbria seed processing line under construction



SOLUTIONS.
TOGETHER.

NEW MARKETS FOR CIMBRIA IN AFRICA

The need for growing industrialisation of the essential seed & food sector on the African continent is driving Cimbria's efforts in the region.

Further to a strong presence in many of Africa's key agricultural regions, Cimbria has now also made inroads in Morocco and Botswana with installations for seed processing ...



AFRICA

THE WORLD'S LARGEST SILO ORDER

Henning Roslev Bukh - hrb@cimbria.com



Within a period of 9 months, Cimbria has completed delivery of 23 silo projects, each with a capacity of 60,000 tonnes, which amounts to a final installed silo capacity of no less than 1.38 million tonnes of grain. Financing of the world's largest contract for silo projects was provided by the United Arab Emirates to the Arab Republic of Egypt. Completion of this huge silo project is progressing very well.

An extract of key data for this order

- 276 silo bins at 5,000 tonnes each with sweep auger
- 450 x 200 tph chain conveyors – 9 km in total
- 92 x 200 tph bucket elevators – 4 km in total
- 23 x 200 tph Delta 167 Mega cleaners
- 2000 x Q30 pneumatically operated valves and slides
- 23 sets of Motor Control Panels with PLC and SCADA
- 23 sets of Unitest Temperature Monitoring and Inventory Measuring Systems
- At least 20 million nuts and bolts

Installation work

The past year has been extremely busy for Cimbria's Site Operations Department, which has been involved in the supervision of installation at 23 different sites all over Egypt. During the installation, testing and commissioning period, Cimbria's staff of almost 50 supervisors, engineers and project leaders have been posted to Egypt.

At present, around 20 installations have been fully completed and tested with grain, whilst the remainder will be completed and tested during the first part of 2017. Contractually, there was a very detailed plan for testing each conveying line for a specified number of hours without failure, as well as testing the holding capacity of one full silo at each plant. All tests have proved to exceed all specified capacities. All in all, an excellent job has been done and we can be proud of having the world's largest silo contract as a reference with all requirements fulfilled.



Silo plant installation at Berkash, Egypt

AFRICA

HEADING FOR NEW AFRICAN MARKETS

Martin Schwaab - scm@cimbria.com



The growing industrialisation of the essential seed & food sector on the African continent is driving Cimbria's efforts in this region, and is as such providing a major boost to Cimbria's current growth. Further to our strong presence in many of Africa's key agricultural regions, Cimbria has now also made inroads into Morocco and Botswana with installations for seed processing.

Looking at the geographical distance between these countries, Cimbria's dedication and efforts in Africa's seed and food sector from the very north to the very south, as well as from east to west, can clearly be seen.

A strong driver in Africa's seed business when it comes to the purchasing of processing equipment is the need for reliable and robust equipment due to difficulties in sourcing spare parts locally in case of malfunctions. Cimbria's name is well known for supplying machines with extra long lifetime, in addition to their excellence in sorting & cleaning accuracy.

Christian Wielander - cwi@cimbria.com



During 2016, Cimbria installed a 5 t/h seed processing plant for maize seed in Gaborone, Botswana's capital city in the southeast corner of the country, for the Ministry of Agriculture. The plant has been erected and commissioned by our local partner GST (Grain and Seed Tech), a long-term, recognised partner of Cimbria for many decades that primarily serves Southeast Africa out of Zimbabwe and Zambia.

Another nice project appeared at the beginning of spring 2016, when Cimbria was invited to Morocco's capital city, Rabat, by S.O.N.A.C.O.S. (Société Nationale de Commercialisation des Semences). This is the leading seed company in the country, with a market share of about 90% in this field. For more than 20 years they had erected their seed processing lines in collaboration with one of our competitors, but had lately been unhappy about the quality of their services. Cimbria thus finally succeeded in winning an order for 2 seed processing plants, each for 10 t/h grain: one in Sale and one in Fkih ben Salah. Both lines will start up just before Christmas 2016.



Seed processing installation in Botswana

AFRICA

ENHANCING QUALITY IN BREAKFAST CEREALS

Andrew T. Kalama - Andrew@cimbria.co.ke



Nairobi-based Weetabix East Africa Limited is a fully owned subsidiary of the UK's Weetabix Cereal Company

"The Weetabix brand has come not only to be loved and trusted by consumers in this region, but has also shaped the breakfast occasion to one that is healthy and nutritious across diverse ages, and we are working hard to remain at the forefront of innovation within the category," remarked Weetabix' Managing Director during the unveiling of the upgrading project in October 2015.

Hence the choice of Cimbria East Africa Ltd by Weetabix E. A. Ltd, representing a strong brand as a supplier of a successful solution in wheat cleaning, buffer storage and optical sorting in the face of fierce challenges from our perennial competitors in the industry.

The machinery installed includes an SEA Chrome optical sorter, an aspirator pre-cleaner, a 1,000 MT silo for wheat storage, belt conveyor, bucket elevator, dust aspiration and batch scale.

The equipment processes and delivers very clean and sorted cereal wheat into the cooking and subsequent processes in the plant, thus maintaining consistency in terms of the quality of the final product.



New SEA Chrome optical sorter at Weetabix Cereal Company

30TH CIMBRIA COFFEE PROCESSING PLANT IN ETHIOPIA

AFRICA

Wieland Bogdan - wbo@cimbria.com



Selling the 30th coffee processing plant to BNT in Ethiopia

An almost endless story of success has now resulted in an anniversary for Cimbria, namely the 30th coffee processing plant built by Cimbria in Ethiopia.

This particular plant for BNT also represented a first, being the first of its kind in the country with a high-efficiency aspiration system. It is fully equipped with filters and dust extraction equipment for significant reduction of emissions, thus not just protecting the environment, but most importantly the staff as well.

Established in 2010, BNT deals exclusively in Ethiopian Arabica Green Coffee. The coffee is purchased directly from the growers and prepared in 60 kg bags for export on a 5 t/h coffee processing facility from Cimbria.



The team behind the BNT green coffee installation

AFRICA

AFTER SALES SERVICE ON AFRICAN GROUND

Felix Aringo - felix@cimbria.co.ke



Grain handlers and seed processors face challenges during operation that range from how to use machinery to how to take care of it. As a business partner in providing post-harvest technology mechanisation solutions, Cimbria is dedicated to ensuring that the right technology and processes are in place and that continued support is granted to enable maximum productivity and return on investment.

Over time, equipment wears out and there is thus a need to maintain this equipment in an efficient state according to schedules and to undertake good repair. Maintenance logs have to be kept up to date and maintenance operations should be carried out safely. Providing after-sales service is fundamental, whether this consists of customer visits, parts replacement or, most importantly, client training.

Project commissioning involves operator training. A plant would not be complete without staff to operate the equipment, and

operation will not be efficient without training and knowledge being provided to the operating staff running the plant.

Cimbria East Africa organises training for maintenance and operating staff to qualify them to operate and maintain equipment to ensure optimum utilisation of resources. This training is tailor-made to cover equipment used by local clients in different regions and any new or emerging technology. It equips participants with knowledge and skills of operating and maintaining Cimbria equipment in order to increase its lifespan and hence achieve a higher return on investment.

Training focuses on best practice during operation and maintenance, preventive and corrective maintenance, troubleshooting, service & operation concepts and issues faced during operation.



Attentive class eager to learn



Group photo of educated participants and staff



MICRO MILLS FOR GREEN COFFEE PROCESSING

Wieland Bogdan - wbo@cimbria.com



MICRO-MILLS, the opportunity for small farmers to sell green coffee directly to the processing industry

Micro-coffee plants are owned by small-scale farmers, but they also help organisations which flock to this system. Cimbria is now focusing on developing small processing lines specifically for this market and has already sold several units to Central and South America. The small processing lines have a hulling capacity of 1 t/h, with potential for growth depending on the initial setup. Since specialty coffees are picked carefully, the equipment can be reduced to a minimum.

During the last 5-10 years, more and more farmers have started their own "micro-Beneficio" (micro-mills) to process coffee from their own small farms or those of their family members or neighbours. Many farms are only a few hectares in size. For wet processing purposes, these micro-mills use mechanical equipment such as Eco Pulpers to decrease water consumption. Most of the micro-millers are also progressive farmers, taking good care of their plants, separating farms and varieties, separating all batches according to daily picking before cupping. A lot of farmers are also organised in cooperatives, selling their product straight to the processing industry. Cimbria

has been offering simple and inexpensive processing lines with our very special Hansa 10 and Hansa 14 hullers, which can peel dry cherry and parchment coffee simply by changing the lower sieves in the machine. In addition, depending on the local coffee quality, a size grader or gravity table can be used for final separation. Since the layouts are flexible, different solutions are applicable. Overall, this should give the farmer the best setup for identifying quality and implementing good processing practices. We were happy to see that many of the micro-mills we sold were standouts, such as that sold to coffee estate La Bastilla in Nicaragua. "You have entered the website of the world's best coffee!" is the bold claim of coffee estate La Bastilla. It produces and exports its own "estate" coffees from its two coffee estates in the highlands of Jinotega, Nicaragua.

The plantations have been certified since 2003 by international non-profit organisations such as Rainforest Alliance, which promotes sustainability in agriculture. The mission of La Bastilla is to produce and deliver to business partners and coffee roasters the best coffee at the best possible quality, using whatever is provided by nature.



NEW INSTALLATION IN CANADIAN PRESERVED BUILDING

Mark Metcalfe - mmetcalfe@nexeed.ca



Canadian Cimbria dealer, Nexeed, installs State of the Art Processing Line in a Preserved Heritage Building

JS Henry & Son is a third-generation, family-owned seed production company located in the western part of the Province of Manitoba. The company grows and processes seed, including cereal grains, soybeans, flax, peas and fababeans.

Having outgrown an existing seed processing line, current management (Cam & Denise Henry, their daughter Marnie and her husband Eric McLean) planned to carefully remove the old equipment and replace it with a new, much higher capacity system between spring seeding and the following harvest, using the same building for the new line. A unique aspect of this project is the building itself – an 86-year-old wooden "hip roof" barn originally designed for livestock housing and repurposed for seed processing in 1982. The new, larger equipment filled the entire building, leading to changes to the loft, which was partly removed and partly left in place to form a section of the operator level.

Nexeed was engaged to assist in planning the installation, including process flow and efficient plant layout given the limited space and height offered by the existing building, as well as design of the stands and operator platforms required to create

an operator level approximately 3 metres above the ground. The resulting facility is an interesting mix of West Canadian farm heritage meeting cutting edge technology.

The process flow includes a 184 de-awner, a Delta Cleaner model 107, Cimbria Heid HSR 12020 indent cylinders, a Cimbria Heid GA310 gravity separator, and a Cimbria SEA Chrome 5 optical sorter.

According to Eric McLean, Cimbria equipment was selected because of good experience with a Cimbria cleaner in the previous plant, a reputation for quality & reliability, and the ability of Cimbria and Nexeed to provide solutions to many of the challenges that arise in a project of this type. Adding optical sorting technology to the seed processing line allows JS Henry to remove imperfections after mechanical cleaning and to make their processed seed a cut above others without sorting technology.

The resulting facility is capable of 12 TPH in wheat or barley and 11 TPH in soybeans. It comfortably processes 13,500 MT of seed each year, leaving potential for an increase in the future.



Cimbria equipment mounted with respect for the preserved building





COLOUR SORTING IN BRAZIL

Amanda Thais Momesso - amanda@momesso.ind.br

Franz Franer - ffr@cimbria.com



If you draw a straight line between Imola, in Italy, and the city of Goianésia, located in central western Brazil, the distance covered is in excess of 9,500 km. It is certainly a long trip, but not so far that Cimbria is shying away from strengthening its presence in the country. As a result, a SEA CHROME sorter completed this trip to reach Limagrain's seed processing facility.

Limagrain is an important client, with a presence in more than 40 countries and over 8,600 employees, whilst currently holding fourth place in the global market in terms of seed sales. Initial prospecting, precise diagnosis of the client's needs, presentation of Cimbria solutions and, finally, effective sales work were performed by our partners from MOMESSO, which represents Cimbria commercially in Brazil.

In spite of the good quality already achieved in corn seed processing by Limagrain, the meetings carried out between MOMESSO and the client indicated the opportunity to further improve these results with Cimbria's advanced colour sorting technology. The goal was clear: to significantly reduce the quantity of defective seeds which invariably passed in the high-quality batches.

Machine installation and client training were carried out in August in close collaboration between Cimbria and MOMESSO.

For this purpose, one of our technicians from Imola travelled to Brazil and joined two expert engineers from our representative, thus demonstrating the highest level of professionalism and dedication to our client.

Recently, we have received compiled data of SEA CHROME results in Limagrain, sent with a message showing our client's satisfaction. The precision achieved by the colour sorter surpassed 99% in all batches analysed. Overall, we achieved an excellent score of 99.88%, i.e., the percentage of defective seeds in the accepted product was virtually zero.

MOMESSO is looking forward to 2017 with great optimism and laying the foundations for new sales. Marketing campaigns and efforts involving the specialised press are already in progress to promote the newly released CHROMEX. The most important initiative from our partners, however, is the opening of MOMESSO's Centre of Excellence. It is a seed processing facility built at MOMESSO's manufacturing site which is entirely dedicated to innovation, tests, training and presentations. This facility is serviced with Cimbria and MOMESSO machines and is open to visits by clients and the scientific community. These initiatives strengthen the basis for ever-better results for Cimbria in Brazil.

PASSING THOROUGH TESTS

Børge H. Svendsen - bhs@cimbria.com



Dalby Mølle is a modern enterprise engaged in the production of organic foods, including the processing of oatmeal and related gluten-free grain products.

In order to continue to occupy a leading position in terms of the quality of grain and flour products, Manager Claus Sønniksen, Dalby Mølle A/S, wished to improve the sorting of grain products further to what could be achieved with existing systems, which include sorting according to the length, thickness and weight of the grain.

Claus Sønniksen was convinced that the best solution would be colour sorting of the grain.

There are a number of manufacturers on the market that offer colour sorting. However, after contacting a number these, Claus Sønniksen decided to go with Cimbria. Claus Sønniksen was

extremely demanding with respect to the result of the test, but Cimbria SEA's dedicated employees managed to ensure correct adjustment of the machine, with the results gaining approval.

The order was placed for a Cimbria SEA Chrome Colour sorter with RGB and InGaAs cameras. This model is well-suited to different applications with high sorting accuracy, including the removal of kernels containing gluten.

In addition to the delivery of the Colour sorter, Cimbria was also responsible for installation and conveying equipment to and from the machine.

All in all a smooth process – from the choice of machine to final commissioning.



Dalby Mølle A/S is an enterprise with a long history. The idyllic mill is situated near the stream of Dalby Møllebæk, which earlier propelled the mill by means of water power.



Chrome Start up: Limagrain's representative, Momesso's representatives and Cimbria technician.



Claus Sønniksen was actively involved in the test, and along with Cimbria SEA's employees he counted the rejected grain kernels in order to ensure that the result complied with specified requirements.

Erik Graversen, R&D, performing a test at the SEA Chrome sorter at the Cimbria test facility in Thisted, Denmark

NEWS FROM CENTRICOATER DEPARTMENT

By Michael Augustin - mau@cimbria.com



Powder conveying system

Conveying powder, e.g. from the big-bag hopper at ground level up to the storage bin of the powder feeder, is quite a challenging job. If local operators are not to transport the powder bags manually up to the coater level, then automated powder conveying systems are required, e.g. using screws or disc-conveyors, pumping the (fluidised) powder using a simple air pump vacuum system sucking the powder up to the storage bin, etc. The main demand in the seed business is 100% self-cleaning equipment to prevent cross contamination as well as dust-tight installation for minimising pollution. For this purpose, the vacuum transport system is the right choice.

The main parts are (from right to left, see illustration) the vacuum pump with necessary air piping, at least one receiving vessel, powder conveying pipes and big-bag hopper with cleaning valve. The vacuum pump starts on demand and creates the vacuum for sucking the powder from the big-bag hopper up to the receiving vessel. After a certain amount of powder enters this receiving vessel, the vacuum pump stops and the bottom flap of the receiving vessel is opened to dump the powder down to the powder feeder below. The big advantage of this kind of conveying system is the vacuum created, thus keeping all conveyed powder inside the piping, and enabling almost 100% self-cleaning of the items.



Principal pneumatic powder conveying system with intake and three drop points

PRECISE SORTING AND GENTLE HANDLING OF GRASS

Andreas Fröhlich - afr@cimbria.com



Grass seed processing plant for more than 30 varieties

When it comes to the processing of grass seeds, "the wheat is soon separated from the chaff" in terms of the quality and efficiency of different producers of seed processing machinery. Precise sorting and gentle handling of the fragile and partially heavily flowing seeds are the key factors for success, and thus it was no surprise that Cimbria was chosen to exclusively supply all processing machinery for a grass seed producer in Austria, a brand new company set up by 7 ambitious farmers who have been planting grass seeds for years.

The plant is formed by a cylindrical screener ZS 700 used for pre-cleaning of the grass seeds, where some of them are quite fuzzy and

thus tend to result in bridging and clumping. Subsequently, a brush machine Delta181 removes awns, as well as dividing double seeds. In the next step, a Super-fine cleaner Delta 104 removes coarse and fine impurities, as well as straw and lights. An indent cylinder HSR 6020 R-L then takes over to sort out short and long weeds, short broken and residues of straw.

Some varieties may then also be separated according to specific weight, which is handled by the gravity separator GA 31 involved in the process. Last, but not least, a velvet roller SRM 200 is installed for removing sorrel and dodder from clover seeds.



MAJOR SEED PROCESSOR IN TASMANIA

Geoff Nuske - sales@cimbria.com.au



Heazlewood Seeds Pty Ltd was founded in 1980 and is situated in Whitemore in northern Tasmania, Australia. The independent, family-owned business offers seed processing services to a range of seed companies and growers. From modest beginnings, Heazlewood Seeds has grown over the years and now processes in excess of 5,000 tonnes of seed annually with a strong focus on pasture seeds and vegetable seeds for both domestic and international markets. A full range of processing, drying, treating and packaging services is offered.

As one of only two main contract seed processors serving Tasmania, Heazlewood Seeds has had to expand to support the recent growth of the Tasmanian seed industry as a whole. Tasmania has similar climate and growing conditions to the Mid-Canterbury region of New Zealand. This, together with recent expansions in irrigation infrastructure and an increasing base of experienced growers, means more companies have been looking to Tasmania for high quality, reliable seed production. Heazlewood Seeds' relationship with Cimbria began in early 2006 with the purchase of their first Cimbria Delta type 106 cleaner and 184 De-Awner plus many screens.

Heazlewood Seeds now operates four processing lines. Two of the lines each feature a Cimbria Delta type 105 and are primarily set up to clean clover seed and carrot seed respectively. A

Cimbria Heid GA310 Gravity Separator has also been installed, primarily to process carrot seed. The Gravity Separator is fitted with a partial dust hood that is connected to a Cimbria Cyclofan type CF-930. The Gravity Separator and the Cimbria Cyclofan were installed in 2013.

The biggest part of Heazlewood Seeds' business is cleaning perennial and Italian forage ryegrass. Tasmania now produces most of Australia's proprietary ryegrass needs. In 2015, increased production in Tasmania led to the company's biggest single increase in cleaning capacity with the installation of two new processing lines for forage ryegrass. Each of the two lines comprises a Cimbria Delta type 106 followed by Cimbria Heid HSR-16020 R-L length separators.

2015 and 2016 saw major processing investment in new buildings and restructuring of one existing Delta 106 processing line and installation of the new Delta 106 and HSR-16020 R-L length separators. Many Cimbria "Q" pipes and two-way valves were also used for a more efficient and quicker installation process, instead of the traditional, expensive and time-consuming custom fabrication method.

"The installation and use of modern and efficient Cimbria equipment has allowed Heazlewood Seeds to meet the quality and throughput standards demanded by our clients".

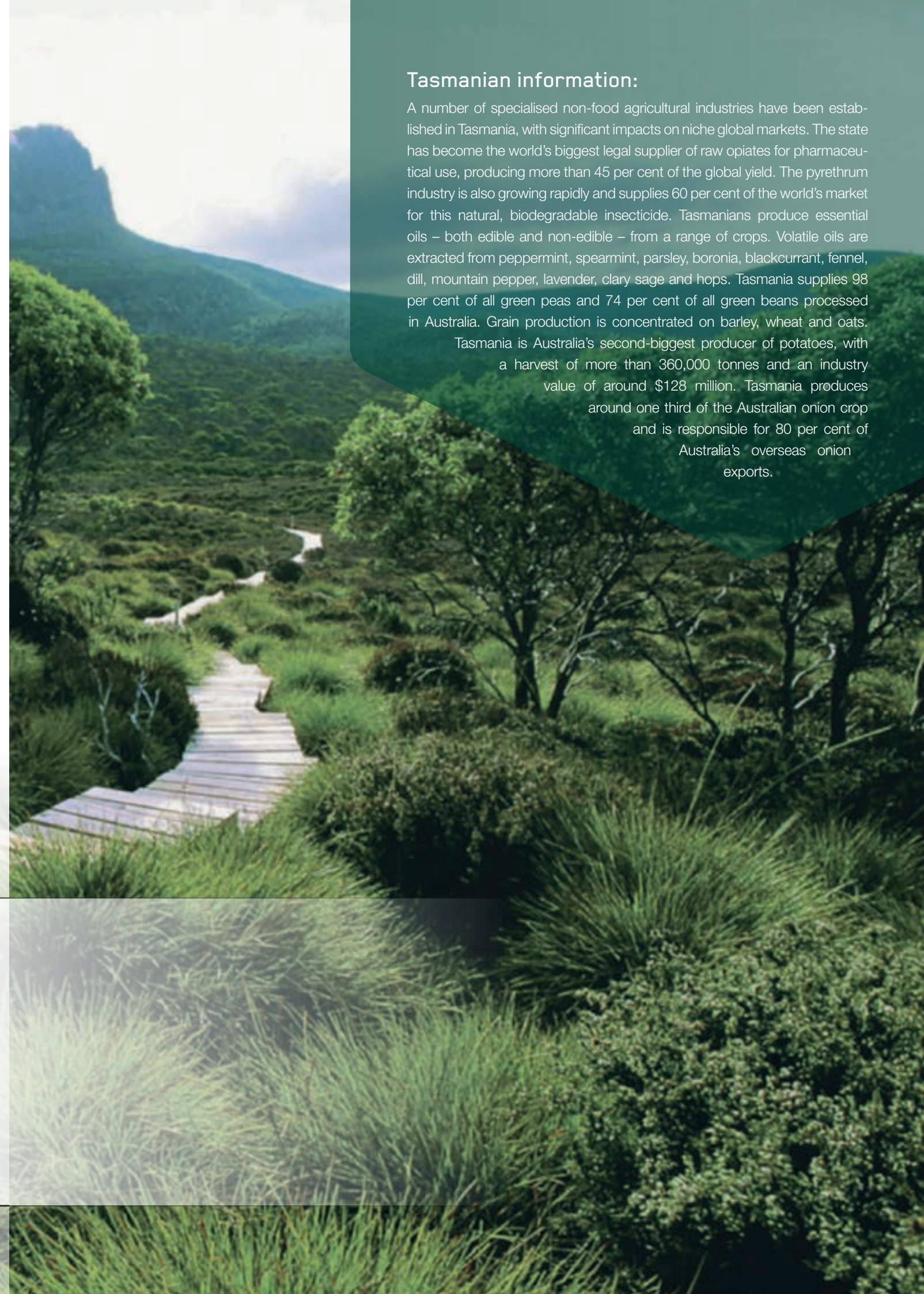
Tasmanian information:

A number of specialised non-food agricultural industries have been established in Tasmania, with significant impacts on niche global markets. The state has become the world's biggest legal supplier of raw opiates for pharmaceutical use, producing more than 45 per cent of the global yield. The pyrethrum industry is also growing rapidly and supplies 60 per cent of the world's market for this natural, biodegradable insecticide. Tasmanians produce essential oils – both edible and non-edible – from a range of crops. Volatile oils are extracted from peppermint, spearmint, parsley, boronia, blackcurrant, fennel, dill, mountain pepper, lavender, clary sage and hops. Tasmania supplies 98 per cent of all green peas and 74 per cent of all green beans processed in Australia. Grain production is concentrated on barley, wheat and oats.

Tasmania is Australia's second-biggest producer of potatoes, with a harvest of more than 360,000 tonnes and an industry value of around \$128 million. Tasmania produces around one third of the Australian onion crop and is responsible for 80 per cent of Australia's overseas onion exports.



Duncan Heazlewood next to the recently installed Gravity Separator



SEED PROCESSING PLANT IN THE HEART OF SERBIA

Franz Franer - ffr@cimbria.com



Famous throughout the world for the extremely fertile Vojvodina region, Serbia plays a key role in the seed industry in Europe. Agromarket, a company based in central Serbia, has installed a seed processing plant for sunflower from Cimbria.

Agromarket's web statements underline their importance for Cimbria as a key player in the Balkans and elsewhere. "Agromarket d.o.o." Kragujevac is a private joint stock company founded in 1991. The main purpose of its foundation was to supply wholesale and retail shops with merchandise for agricultural production. Today, more than 20 years after its foundation, Agromarket is a producer, one of the leading importers, representatives and distributors of a large number of articles that successfully fulfil the needs of buyers in the West Balkan region – Serbia, Bosnia and Herzegovina, Montenegro, Macedonia and Kosovo – in addition to being a representative of brands of the world's leading producers of pesticides (Syngenta, Du Pont, Dow AgroSciences, Bayer CropScience, BASF, United Phosphorus, Arysta LifeScience, Sinochem Ningbo, Agrifar, Spiess Urania, Cheminova, Nissan Chemical Industries, Zapi, Goemar, Galenika Fitofarmacija, Cinkarna ...)

Through the "Agromarket Group" and expanding the group's activities through sectors of agricultural production, processing and export of agricultural products, a unique and complete offer is made to clients and business partners, thus strengthening the enterprise's leading role in the regional agricultural sector.

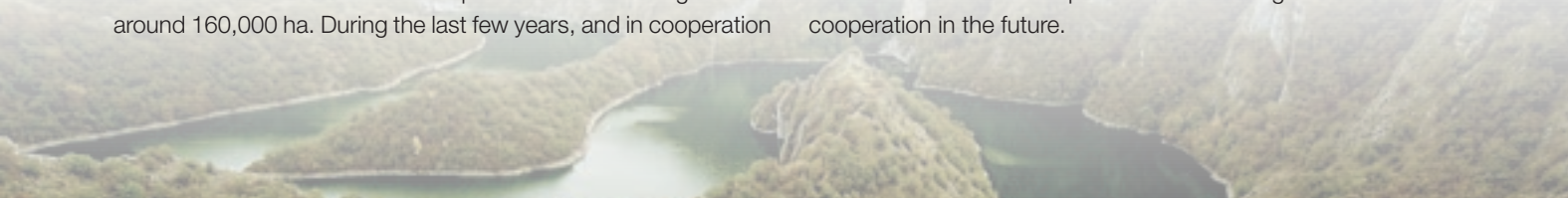
Sunflower is the most common oil plant in Serbia and is grown on around 160,000 ha. During the last few years, and in cooperation

with Institute Novi Sad, Syngenta and Advanta Seed, many standard and new hybrids of sunflower have been grown in Zajecar and Bela Crkva. High quality and high yield of sunflower oil, as well as specialised so-called IMI hybrids, provide a seed of exquisite attributes to end users in Serbia, Ukraine, Romania and Bulgaria.

This was a key factor that led to Agromarket deciding to expand its processing business at a very high level of quality, with advice provided by Syngenta experts, since this plant will mainly process sunflower for Syngenta.

The 4-tonne per hour line is equipped with a Cimbria Superfine Cleaner D106 (on top with a DeAwner Delta 184 in order to maintain the multifunctional profile of the plant). The Indent Cylinder HSR 12020 R-L takes care of sticks, as well as enabling wheat seed processing. The Cimbria Treater CC50, equipped with direct dosing and mass flow meter dosing, completes the plant. The mass flow meter is mainly used for pesticides applied to the sunflower kernel. Well aware of the importance of transporting sunflower kernels, Agromarket decided to go for professional pendulum bucket elevators (PBE20) in order to ensure that not a single seed suffers damage. Last, but not least, modern PLC control provides the best overview of the plant and ensures an efficient working process.

We at Cimbria are proud to welcome another highly professional customer in Serbia as a Cimbria seed plant owner. We are excited about their future plans and are looking forward to further cooperation in the future.



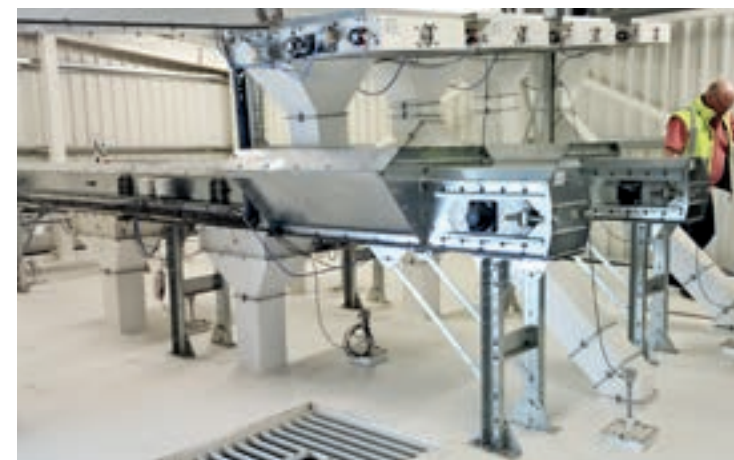
Sunflower seed line 4 tph intake capacity



PLC central control



Pendulum bucket elevator for gentle conveying



Conveying over finished product silos at Fiskaa Moelle, Etne

Fiskå Mølle, Etne

This year has seen the completion of a major extension to the facility at Fiskå Mølle in Etne that has meant that capacity has been increased throughout all areas of the feed factory.

Starting at the raw product end, 6 new raw product silos have been installed, equipped with screw conveyors for retrieval/dosing of products down into a new weighing scale that helps to ensure that weighing takes place at a sufficient rate with even more raw products. An extension has also been implemented for micro-products, which are received in large sacks and are dosed into the new weighing scale. Along with the extension that contains the microproducts, space has been allocated for a new control room, behind which a new production tower has been built which is ready for a new production line to be installed while the current plant continues operating. A future upgrade of the capacity of the plant has thus been taken into account without the plant having to be shut down for an extended period while this takes place.

As a simplification of the use of round steel silos, a new higher-lying base has been constructed, under which a conveyor is installed running from the centre of the silo to another conveyor that transports products into the production area. The silo is also equipped with sweep augers, such that emptying of the silo is automated.

The final part of the extension consists of more finished product silos that are constructed adjacent to the existing finished product silos. Conditions have been improved for truck drivers when loading their next load of feed for their customers. Finally, the option of putting products into sacks has been established here. Cimbria has been responsible for the entire layout of this extension, having previously carried out a major extension of the facility.

AM Nutrition

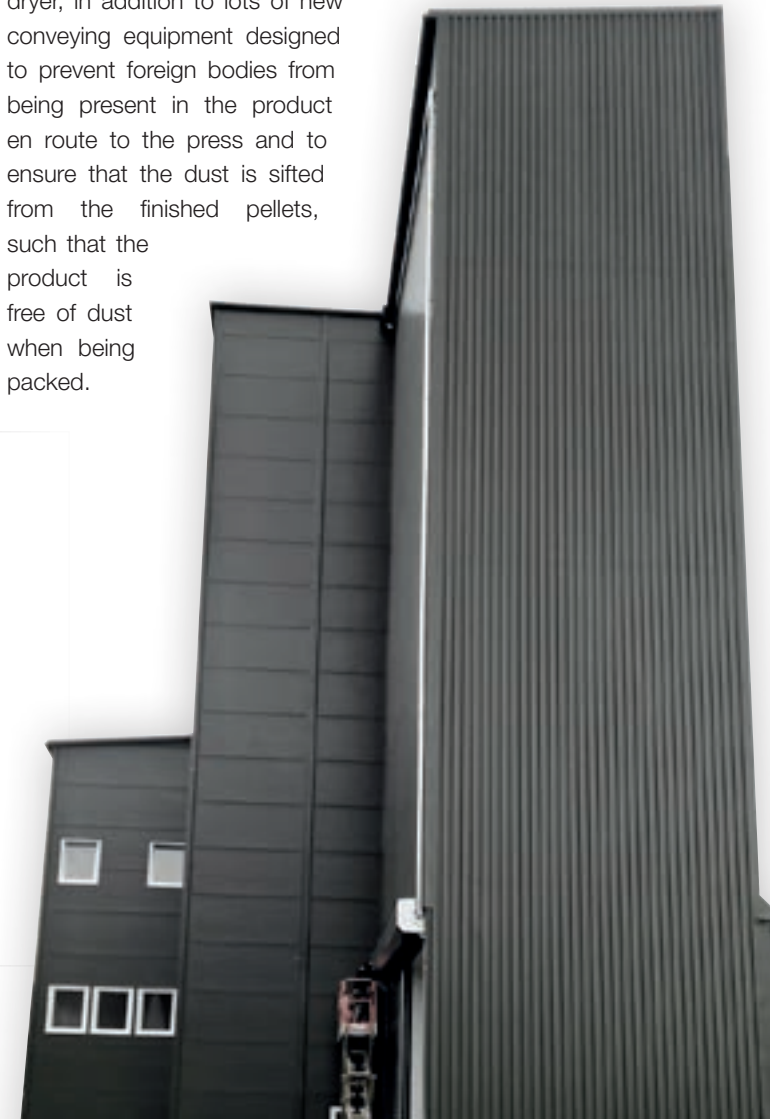
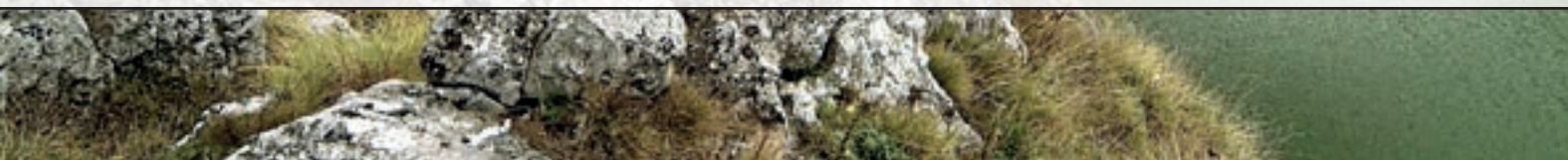
AM Nutrition produces a high-protein product based on peas that are imported from various places around the world. We are installing a new cleaner in the plant, such that the protein part can be supplied completely free of gluten. The process involves purging all grain from the product, thus ensuring a completely gluten-free product. The grain that is purged can be used in the production of animal feed.

Norsk Naturgjødssel

Norsk Naturgjødssel is picturesquely located on the North Sea coast and manufactures pellet fertiliser whose main ingredient is chicken manure which is dried and sifted before being turned into pellets, cooled and put into plastic sacks. The fertiliser is primarily sold in DIY stores and nurseries, in addition to which it is also exported to Vietnam. We have carried out major modifications this year, including a new screw conveyor to pull the chicken manure into the dryer, in addition to lots of new conveying equipment designed to prevent foreign bodies from being present in the product en route to the press and to ensure that the dust is sifted from the finished pellets, such that the product is free of dust when being packed.



Willy Jensen - wje@cimbria.com





HIGH CAPACITY LINE FOR MAIZE IN FRANCE

Thierry Herault - the@attrissem.com

Friedrich Kienmeier - frk@cimbria.com



MAISADOUR upgraded one of its maize seed processing lines in the South of France with a Centriccoater CC 250, along with a highly versatile and flexible dosing system for treating agents. To gently convey the treated seeds at an hourly capacity of up to 25 t/h after treatment, the first PBE 40, our latest and largest pendulum bucket elevator, has been introduced to the plant.

Attrisem, Cimbria's representative in France, Europe's primary agricultural country, has enjoyed close cooperation with Maisadour ever since. Placing its trust in Attrisem's extensive experience and capabilities in the field of project work, combined with the outstanding quality of Cimbria's processing and treating equipment, Maisadour put the new project for chemical treatment and full plant implementation of the new systems into the hands of Thierry Herault, MD of Attrisem, and his team.

Chemical treatment of maize is realised with a Centriccoater CC 250, which is the biggest batch treater available in the market. The preparation of treating agents is fully automated by means of a sophisticated pumping system with 7 dosing lines, each of these responsible for 2 IBC tanks, where one of the tanks (either the left or right tank in the row) is connected to the dosing line by

quick-lock connections that send an electrical signal to the central control unit whenever a connection is changed. The treating agent actually being used is then confirmed by the operator. The control unit then compares the recipe configured in the Centriccoater, and will only permit the system to start if the treating agent is the correct one, thus preventing any mistakes due to connecting incorrect tanks. The powder feeder is supported by an automated conveying system which permanently refills the powder feeder on the Centriccoater from a reception system for big-bags or barrels on the ground floor. The entire treating system is supported by 3 HMI touch panels at different locations in the plant, each of these providing a full process overview. Furthermore, a protocol system to provide 100% traceability – thus ensuring consistent and permanent quality control – is included in the control unit.

The latest and largest type of pendulum bucket elevator – our PBE 40 with a capacity of up to 40 m³/h – receives the treated seeds after the Centriccoater CC 250 and gently transports the finished seeds to the packing lines. With regard to grain, the PBE 40 has a capacity of up to 30 t/h wheat, while naturally offering all the advantages of pendulum bucket elevators, such as gentle conveying, combination of horizontal and vertical conveying in a single conveyor, and the option of several inlets and outlets.



Centriccoater CC250, biggest batch treater available on market



Pumping system with 7 dosing lines, each with 2 IBC tanks

CIM-SAFE - SAFEGUARD YOUR PRODUCTIVITY

Palle Dybdal - pdy@cimbria.com



In the grain processing industry, and especially in grain drying, the risk of sparks has always been present, with various solutions to minimise the risk of devastating damage to equipment needing to be implemented. For the past 30 years, the solution Cimbria has used in our grain dryers is the well-known CW-4 overheating alarm – a system that registers temperature increases via heat sensitive cables, sends an alarm to the operator and shuts down the dryer, thereby preventing a fire from developing.

As the market has developed with fewer but larger process plants where efficiency and reliable operation is key to maintaining productivity and profitability, it is also increasingly important to focus on safety equipment that ensures operation of the plant and detects sparks and embers as early as possible. Furthermore, legislative measures such as OSHA in North America and ATEX in Europe have forced the industry – both equipment suppliers and processors – to reconsider and improve plant design.

In order to comply with legislation and to safeguard equipment, Cimbria has recently launched a new Infrared Spark Detection System - CIM-Safe. CIM-Safe has already been implemented as a new safety device on our dryers, mainly because the system features:

- Faster reaction compared to the CW-4 cable solution
- No adjustment required, i.e. the system is always engaged regardless of the product being processed.
- Easy installation with high-sensitivity infrared sensors

The CIM-Safe system has been reviewed by the Danish Agri-Business insurance company and is recommended as the only solution that

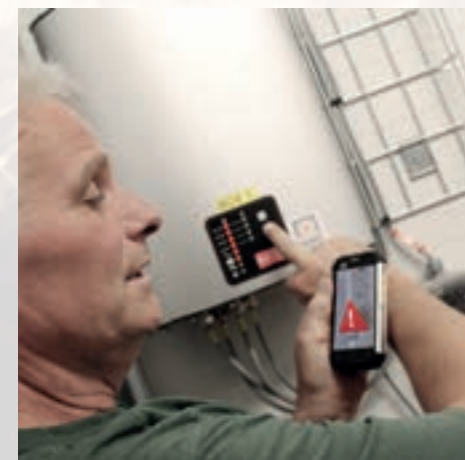
qualifies for a premium reduction – just as the CW-4 also did. Due to the compact and sturdy design of the die-cast aluminium sensor housing with infrared detection sensor well protected behind scratch resistant sapphire glass, the CIM-Safe system offers increased protection on a wide range of equipment within the agro-industrial sector:

- Bucket Elevators
- Belt Conveyors
- Chain Conveyors
- Transfer Points / Intake systems
- Aspiration Systems
- Pneumatic Systems
- Milling Equipment

CIM-Safe is easily incorporated on a.m. equipment and connected to a remote control panel that 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.

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 a confined space.

In short, in all areas where a potential risk of explosion exists, CIM-Safe can be considered as a measure to minimise costly damage to equipment and – perhaps even more importantly – consequential losses due to production stop.



CIM-Safe provides an acoustic alarm by activation – for added safety, a remote alarm to e.g. a mobile phone can be added



The main components for installation on the equipment that needs protection: The Spark Detector and the Air Cleaning Nozzle that ensures full sensor visibility at all times



CIM-Safe principle installation on a continuous flow dryer – demonstrated by Business Area Manager Palle Dybdal on the left



OPTIMIZATION AT BESTWAY MILLING

David Thompson - dth@cimbria.com



In late 2015 we were approached by Bestway Milling and asked for suggestion on how to increase capacity and product quality of their white rice line by means of an indented cylinder. We supplied an HSR6010L with agitators and air cleaning, which they immediately found increased the capacity of their milling operation from 2 tph to 5 tph. In early 2016, having run the cylinder for a few months, there was a need to update the rest of the plant. We supplied a number of external machines, including RL5 chain conveyors and EC8 bucket elevators to future-proof the system and ensure an intake of 40 tph.

From there, we then supplied a number of RA5 angle chain conveyors within the mill building. These were chosen for two reasons: the slow-moving nature of the machine and the fact

that we could make the pre-milling bins bigger by using a steep bend into the initial plant elevator. The mill handling equipment has remained unchanged, as it may be upgraded at a later date to achieve 10 tph when and if another line is added.

After the milling process, the customer specified 30 tph on the handling equipment to move the product to the packing plant. All the RL3 chain conveyors were specified with air cleaning fittings. Also incorporated into the new packing plant was the first Pendulum Bucket Elevator that we have sold in the UK, which is particularly useful for lentils, as they require very delicate handling prior to packaging. We have subsequently sold another PBE10 to another food processing facility which requires gentle handling of the finished product.



DANTOASTERS FOR DODSON & HORRELL

David Thompson - dth@cimbria.com



Dodson & Horrell Ltd is the no. 1 horse feed producer in the UK. It manufactures and distributes around 85,000 MT of horse feed and pet food products every year and is a market leader in its specialist sectors. Cimbria has worked with D&H Ltd for many years, so in 2015, when D&H was looking into a major development programme for its feed mills, the company contacted Cimbria to see what equipment in our range would be best suited to its plans. D&H already had Cimbria grain & legume cleaners and mass-flow hygienic square silos and was interested in seeing some more of our extensive grain processing equipment.

During a visit to our factory and head office in Thisted, D&H Ltd spent a long time in the test facility silo block where we trial and develop new equipment, run training programmes and can demonstrate our product ranges to potential and existing customers. D&H Ltd was very interested in seeing our machinery demonstrated in operation using grain, thus 'bringing the equipment to life'!

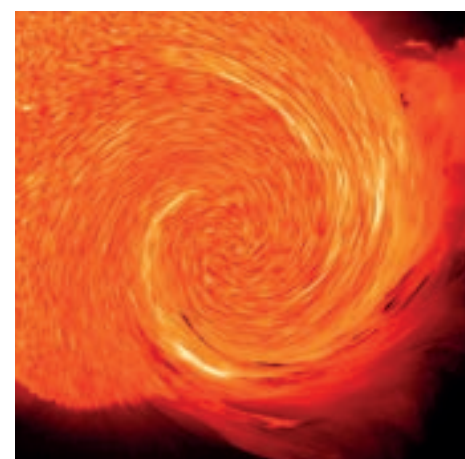
Dodson's saw our small-scale version of the Dantoaster here for the first time and during our discussions it came to light that they wanted to replace their 4 Micronisers; they really had not expected to see a toasting dryer in our plant!

They were interested in running a comprehensive trial programme on a range of their product ideas through the test machine, with particular focus on sterilisation, gelatinisation and toasting. Over the next 6 months, trials were run with many products such as cereals, legumes and fruits. The results from the test programme were deemed successful, being on a par with or surpassing their process development ambitions.

A major added benefit – in addition to its technological function – was that the running costs of the Dantoaster were significantly lower than other systems and offered greater flexibility.

In 2016, Cimbria supplied 2 stainless steel Dantoasters on the strength of the testing programme carried out in the Cimbria test silo block and the benefits they expected to see in terms of reducing running costs.

The equipment is currently in the process of being installed by Dodson & Horrell and will be commissioned early in 2017.



A 20 YEARS SUCCESS STORY IN THE BALTIC STATES

Arne Jensen - aje@cimbria.com



On 15 June 2016, Cimbria's partner and dealer in the Baltic celebrated its 20th anniversary. In connection with the anniversary, the company decided to change its name from Dotnuvos Projektai to Dotnuva Baltic.

During its first 20 years, Dotnuva Baltic has achieved great success and is the leading provider of agricultural solutions in Lithuania, Latvia and Estonia today. Its range of activities and services has also expanded – supplying seeds, machinery, spare parts, service, farming and grain equipment.

Dotnuva Baltic has established a strong foothold in the Baltic market, and customers can already find Dotnuva Baltic in 14 regional sales and service centres.

The combination of local presence and a professional and very dedicated team offering everything from preparing proposals and design of plants to carrying out installation and after-sales service makes Dotnuva Baltic a preferred supplier in its market.

THE BALTIC STATES
HAVE ALSO BEEN AN
IMPORTANT MARKET
FOR CIMBRIA IN 2016
WITH A NUMBER OF
COMPREHENSIVE
ORDERS FOR
THE GRAIN
INDUSTRY

Client: Laheotsa, Estonia. Laheotsa 4.000T silo plant.
Equipment supply: Continuous flow Dryer, chain conveyers, bucket elevators, Precleaner, wet bins and Storage silos.
Scope of supply: Design, delivery of equipment, steel structures, design and manufacturing of control panel, mechanical and electrical installation.



Client: Farmer S. Toleikis, Radviliskio 2.000 T silo plant.
Supply of equipment: Continuous flow dryer, chain conveyers, bucket elevators, precleaner, wet bins, storage silos.
Scope of supply: Design, delivery of equipment, steel structures, design and manufacturing of control panel, mechanical and electrical installation.

Client: Sidabravo Zub. Extension of existing dryer plant.
Supply of equipment: Precleaner Delta with wet bin, chain conveyers, bucket elevators all integrated in to existing drying plant.
Scope of supply: Design, delivery of equipment, steel structures, design and manufacturing of control panel, mechanical and electrical installation.

Client: UAB Agrima. 12.000T silo plant.
Supply of equipment: Continuous flow dryer, chain conveyers, bucket elevators, precleaners, wet bins and storage silos.
Scope of supply: Design, delivery of equipment, steel structures, design and manufacturing of control panel, mechanical and electrical installation.

Client: KB Agropartneris. 13.000T silo plant.
Supply of equipment: Complete turn-key plant including civil works, design, delivery of equipment, steel structures, design and manufacturing of control panel, mechanical and electrical installation.

STORING AND CLEANING CORIANDER AT SUBA SEEDS

Ugo Balestrieri - balestrieri@cimbria.it



SUBA Seeds – A different approach to storing and cleaning coriander

The long story that links Cimbria Heid Italia to SUBA Seeds has its origins in the development of a number of short lines, whereas today it encompasses an enormous number of products offered by SUBA. SUBA uses single big-bags when working with many different products, whilst the different lines enable different products to be worked on simultaneously.

This way of working allows huge flexibility in production, but requires low flow rates. The increasing demand for coriander seed in recent years was beginning to put a strain on production, and SUBA thus began thinking about a new approach to meet market demand.

The request that came from SUBA involved two main features:

- A mass storage plant to improve reception capabilities
- A seed cleaning line which could support the kind of volumes that would improve SUBA's sales capabilities

The initial proposal that SUBA presented to Cimbria was for a “typical” storage solution, with the project being shared with other potential suppliers. Initially, SUBA only approached Cimbria with regard to the seed cleaning line, whilst considering other potential suppliers for storage and pre-cleaning.

Having examined the project presented, Cimbria raised the following objections:

- Mass storage based on steel silos risks damaging the seed in loading and unloading operations
- Steel silos can generate temperature issues that can cause condensation in the interior
- Standard conveying equipment risks damaging the handled seed and causing cross-contamination
- Steel silos can be very useful during the season, but during the rest of the year they remain empty and cannot be used for other applications
- On this basis, Cimbria presented an alternative project for a fully automated flat storage warehouse along with mechanised equipment consisting of RS7 chain conveyors, low-speed, high-capacity bucket elevators (ED12LS) and cleaning performed by means of a Delta 146 pre-cleaner.

The new general layout has a more compact appearance and features the following important characteristics:

- Receiving and processing lines close to each other, thus reducing the number of operators needed to run different tasks
- Storage facility able to receive and manage both big-bags and raw product delivered by truck
- Flexible building for different uses: not only for product storage during the season, but can also be used as a warehouse during the rest of the year
- Valuable building to increase the market value of the company

- The proposal received a favourable response from the enterprise in terms of both technology and layout. The possibility of using the new building all year round provides tremendous logistical benefits, whilst gentle handling performed on relatively high capacities improves the yield on the final product.

For these reasons, SUBA decided to award Cimbria the whole project as an electro-mechanical turnkey supply. Civil works commenced at the beginning of March on a greenfield site, with the entire plant beginning operations at the end of June, ready for the first trucks with coriander seed.

After one-year of operation and accumulation of experience with the new plant, SUBA presented requests for further developments. These requests were based on the high performance of the conveying equipment in terms of flow-rate and gentle handling, along with the high level of impurities in the raw product. These two factors have led to a request for a much larger pre-cleaner to provide better performance in terms of total receiving capacity, as a result of which a high-capacity Delta 168 has been chosen to carry out pre-cleaning. Moreover, the excellent flexibility of the cleaning line has resulted in a proposal to create another receiving pit mainly dedicated to legumes (which represents a new business area for SUBA, a company that has traditionally focused on vegetable seeds). The new line envisages using the “old” Delta 146 to pre-clean the product for loading into big-bags or for conveying the product directly to the seed cleaning buffer bins.

SUBA is still developing the new facility to further improve its business. The different approach to the initial project provided a number of major advantages, the most relevant of which have been:

- Being able to cover and lead the way in areas of the market which could not be covered without a significant improvement in total capacity
- A significant improvement of the value of the company through the construction of a new warehouse
- The opportunity to enter new product markets through the flexibility of Cimbria seed cleaning lines.



NEW LEGUME PROCESSING LINE FOR ILTA ALIMENTARE

Simone Malaguti – malaguti@cimbria.it



A BRAND NEW LEGUME PROCESSING LINE FOR ILTA ALIMENTARE

The legumes market has undergone incredible development during recent years in Italy, and now represents a worthwhile opportunity for all commodity traders. Foreign investors had begun to see signs of this new reality at the end of 2014; and this was also the reason why the owners of ILTA ALIMENTARE decided to establish a new company at Porto Marghera in Venice.

In summer 2015, ILTA ALIMENTARE asked Cimbria to develop a turnkey project to process legumes. Cimbria Heid Italy designed a competitive and efficient turnkey project that received the approval of the customer and was fully operational by the beginning of 2016.

ILTA receives the raw product in big-bags or containers. The process starts by filling the first 2 cylindrical buffers that lead legumes to a Delta cleaner type 106. From the cleaner, the product flows through a magnetic box and then into a Drystoner TS180. It is then lifted once again to a Gravity Table GA210, onwards to an optical sorter Chrome 5 (configured as 4+1 lines for cleaning and re-separation) and finally to a Delta 126 grader. The 3 different grades are stored in 3 cylindrical buffers.

A screw conveyor collects the screened product and delivers it into the sixth bin.

The cleaning line has been placed on the right side of the building. A belt conveyor placed under the 3 buffers that contain the graded product brings the legumes to the bagging area on the left side of the same building, where a ZS700 cylinder grader removes the last of the broken legumes, storing the final product in 2 different square buffers.

The plant cleans chickpeas, lentils, peas and beans at an average capacity of around 5 T/h.

Once installed, a number of tests were performed that proved that EC8LS Elevators, combined with vertical and inclined brakes, were able to maintain the desired plant efficiency with a very low quantity of broken legumes during the cleaning process.

This solution will become a milestone for future projects where the integrity of the seeds needs to satisfy the requirements of the end market.

HUGE SUNFLOWER SEED SILO IN RUSSIA

Arne Jensen - aje@cimbria.com



Huge Sunflower Seed Silos in Russia

The “Sigma” group of companies is the largest agro-industrial company in the Ural region and the Republic of Bashkortostan. Their main activity is production and sale of vegetable oil.

For their new 1,500 TPD sunflower oil extraction plant, “Mayachny”, Cimbria is constructing a 162,000 m³ silo plant located 250 km south of Ufa in the Republic of Bashkortostan. The new silo plant includes eighteen silos, each with a capacity of 9,000 m³ and equipped with sweep augers, aeration fans and Cimbria Unitest temperature monitoring system.

There are two truck intakes, each with a capacity of 100 TPH in sunflower seed. Both intake lines have a Cimbria Drum Scalper followed by a Mega 168 screen cleaner. Two Cimbria ECO Master Dryer DMG-34Rs, each with a capacity of 50 TPH, have been installed for drying sunflower seed (13-7%).

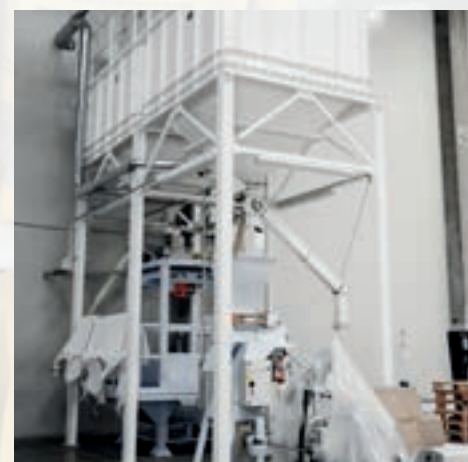
The complete facility is operated from a Cimbria PLC and PC control and automation system.

Cimbria has provided design and engineering of mechanical and electrical works, as well as supervision of installation. Intake, cleaning, drying and the first four silos have been supplied and are ready for operation – construction of the remaining silos will continue throughout spring 2017.

Chisminskoye plant extended by another Cimbria Dryer

In 2016, another Cimbria ECO Master Dryer DMG-34R was added to the “Chisminskoye” silo plant, which also belongs to Sigma Group. Chisminskoye is a 90,000 m³ silo plant located in Chishmy near Ufa. It was built by Cimbria and handed over to the Sigma group in 2014.

In total, three DMG-34R dryers, each with a capacity of 50 TPH in sunflower seed, are today installed and in operation at the Chisminskoye plant.



Wintertime at “Mayachny”, in the Republic of Bashkortostan, Russia

Erection of “Mayachny, a new 1,500 TPD sunflower oil extraction plant

ELECTRONIC SORTING AND SEED PROCESSING IN UK

David Thompson - dth@cimbria.com



Cimbria in the UK seed sector has supplied many machines in recent years for complete seed lines, either new builds or replacement of older machines from other manufacturers. The machines Cimbria have historically supplied have ranged from pre-cleaning through to fine cleaning, indented cylinders and gravity tables.

In 2013, however, this changed with the addition of SEA to the Cimbria family with its range of optical sorters. This then meant that Cimbria had the full package of machines for seed production and grain cleaning. Having sold optical sorters to most of the seed companies operating in the UK over the last three years, we were approached by an existing Cimbria customer, Dunns of Long Sutton, which is part of the Gleadell Group, to look at supplying two Chrome machines.

Seed processing line installation

The first Chrome machine supplied was a seven chute machine with 2 resort channels. This machine was installed at the end of their Line 5 operation. Also supplied in this order was a GA110 gravity table to run in conjunction with an existing Delta 118, HSR cylinders and GA310. The GA110 has been installed to re-process the middle fraction of GA310, thus adding an extra 5 tph to line production and then installing the Chrome 7 at the end of the line.

Dunns' production manager, Andre Pittock, chose the Chrome machine over other models due to its ability to shape and size sort, as well as having full-colour capabilities, in addition to his personal experience gained from a long association with Cimbria equipment. This line will now comfortably process 20 tph on cereals and 10-15 tph on pulses.

Mobile seed processing unit

The second machine supplied was a Chrome 5. In a first for us, it was to be mounted on a truck as part of a mobile seed processing unit consisting of a Delta 184 de-awner, Delta 116, gravity selector, Chrome 5 and seed treater. This project was undertaken by Dunns on behalf of Gleadell, as Dunns has considerable experience of seed production. The biggest challenge for this project was the available space to fit everything on board a truck, whilst at the same time complying with UK legal height and width restrictions for road transport. To ensure this was maximised, an articulated step frame trailer was selected. As access was always going to be an issue, the clever roll-out frame which the sorter is mounted on is deployed to one side when maintenance is required. All the machines on the truck are aspirated by a CF30 mounted on the truck, located above the compressor for the sorter. This mobile unit has been operational on farms in the Eastern Counties since September and has been running comfortably at a constant capacity of 12-15 tph.

PLANT FOR ANCIENT WHEAT VARIETIES

Vladimir Naplava - navzas@navzas.cz



Spelt, einkorn and emmer are continuing their triumphant procession on the biological food-track in Europe. Cimbria's representative in the Czech Republic, Navzas, installed a complete peeling and processing line for its customer, Nominal CZ Obchodni s.r.o.

Looking at the preliminary 3D-drawings of the plant compared to the pictures of the completed line, the detailed preparation work during conception and planning can clearly be seen, followed by professional assembly and commissioning on site. All the important steps of the entire project were handled by Cimbria. The result was well thought-out and sophisticated installations for processing of seeds and food products to the highest degree of purity and customer satisfaction, with nothing left to chance.



FROM INDUSTRIAL GRAIN TO TOP-QUALITY BREAD GRAIN

Frode Kirkegaard - FKl@cimbria.com



Every year, Danish enterprise Mollerup Mølle A/S produces approximately 200,000 tonnes of pig feed, cattle feed and feed for animals on hobby farms. Quality and service always have highest priority, with continuous product development and check of the company's own feed mixes, in addition to which the company is at the forefront of development in the sector. For many years, Cimbria has had a close working relationship with Mollerup Mølle on both new and existing projects. Most recently, Cimbria delivered a complete drying plant with intake capacity of

200 TPH and drying capacity of 100 TPH. As part of Mollerup's constant business development, during the summer of 2016 Cimbria delivered a Cimbria colour sorter type SEA CHROME 5 T+T. The purpose of the investment in the colour sorter was to sort the toxic ergots (black kernels) from rye and thereby enable industrial grain to be transformed into top-quality bread grain ready for sale. Mollerup Mølle will subsequently also use the colour sorting plant for seed corn.



Cimbria equipment including the SEA Chrome machine installed at the end of a seed processing installation



Truck with mobile seed processing unit



SEA Chrome colour sorter mounted on a roll-out frame



Kresten Pedersen and Henrik Dissing, Moellerup Moelle, next to their latest investment, a Cimbria SEA Chromex colour sorter



EXPANDING HORIZONS WITH CIMBRIA IN UKRAINE

Oksana Stretovych - Oksana_Stretovych@cimbria.com.ua



Nibulon: 100 days from scratch to final delivery

Cimbria is continuing to increase its presence on the Ukrainian market, with 2016 seeing Cimbria supplying orders to major operators in the grain and seed processing industry and port terminals.

On 3 July 2016, our esteemed and reliable long term partner NIBULON Agricultural Limited Liability Company commissioned a new high-tech trans-shipment terminal in Voznesensk in the Mykolaiv region. For this project, Cimbria supplied conveying equipment: belt conveyors, bucket elevators, fans and Moduflex loading chutes.

Complete project implementation covering equipment manufacturing and delivery, civil construction works including piling, equipment installation and commissioning took just 100 days. A great success for Nibulon, and Cimbria is very pleased to make its contribution to the company's further growth and development.

Silo project for Altera Azteca

Altera Azteca, a division of the Gruma Group, has awarded Cimbria a contract for a complete 50,000 t silo installation intended for the existing milling facility. Our scope of works covers complete design and project engineering, as well as delivery of a considerable amount of Cimbria equipment, including 2 DMG 26R dryers, 2 cleaning lines with Delta 159.1, 200 t/h conveying equipment (chain conveyors, screw conveyors, bucket elevators), control panel and silos. The project consists of two stages.

The first stage of the Altera Azteca silo project will be finished in during the end of 2016. Testing of the truck intake, conveying equipment, Cimbria Delta cleaners and aspiration system has been completed. The first batch of grain was successfully processed and put into storage. We are currently finalising commissioning work and training of personnel.

Extending existing facilities at Agrocorporation "Stepova" Ltd.

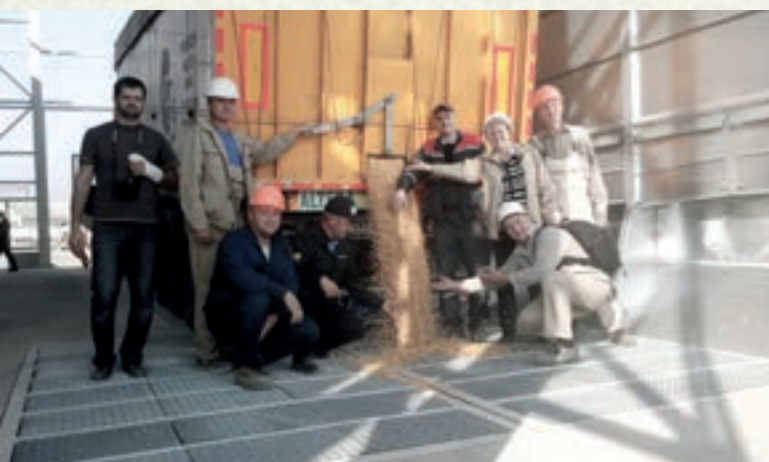
Cimbria began cooperation with Scientific Production Agrocorporation "Stepova" Ltd. in 2006 with the supply of a complete 10 t/h seed plant. As it so often happens for our customers, this plant provided the basis for the company's steady growth. As a result, 10 years later, Cimbria is now busy working on the extension of the existing seed plant, whilst Stepova is planning construction of a new seed plant with seed storage in 2017.

This year, Cimbria has extended the existing facility with 2 Delta 126 cleaners and conveying equipment PBE 10 and PBE 20, with capacities of 5 t/h and 10 t/h respectively. We have also added another seed treatment line, including a jog conveyor dryer JCD 625/5+1 and bag and big-bag packing unit. Commissioning and handover is scheduled for the beginning of December 2016.

Supplying Syaivo, a new customer from the Chernihiv region

Syaivo is Cimbria's first customer from the Chernihiv region. The company specialises in fine seeds. Its main products are flax, hemp (cannabis) and mustard. For the Syaivo plant, we have supplied a seed line equipped with a fine cleaner Delta 106, gravity separator GA 210, indented cylinder HSR 12020, conveying equipment, bag and big-bag packing unit. Moreover, there is an additional intake bin for repacking from big-bags into bags.

Mechanical assembly is currently taking place on site. This will be followed by electrical work. The plant will be in operation by the end of December 2016. We are confident that the excellent performance of Cimbria technology will support the continued growth of our clients and provide the basis for new projects in Ukraine.



Intake of the first truck with grain at Altera Azteca



Altera Azteca storage plant under construction



Scientific Production Agrocorporation Stepova seed plant



Beautiful view over silo roof

STORAGE OF COFFEE BEANS

Niels Christensen - nch@cimbria.com



In 2016, BKL foods ordered the extension of its silo installation. This involved a total of 72 new silo cells with ancillary steel constructions and conveying equipment for integration with the existing installation, the majority of which dates back to 1999.

Since its foundation in 1960, BKL Kaffe A/S – “Brasil Kaffe Import” – has delivered quality coffee to Danish consumers, whilst in recent years exports to the rest of Scandinavia have increased significantly.

Today, BKL roasts and packs coffee from all over the world at its high-tech coffee plant in Højbjerg near Aarhus. BKL is one of the biggest operators in the coffee market and is the only 100% Danish-owned coffee producer with production facilities in Denmark selling to the retail and food service sector.

Food safety and quality are important at BKL, which aims to produce safe foodstuffs of high quality. The enterprise is certified and BKL's employees receive ongoing training in food safety and quality. The new silo is being installed on top of the roof of an existing building for logistical reasons and due to constraints in terms of space.

In connection with the facility, great importance is attached to its suitability with respect to foodstuffs in accordance with EN 1935/2004/EC, which means, among other things, that:

- The silo cells are delivered with a specially approved powder coating that has been certified in connection with the storage of green and roasted coffee beans.
- The steel for the silo cells meets the requirements concerning max. content of lead, cadmium and arsenic.
- Conveyors are equipped with wearing plates that are suitable for use with foodstuffs. The conveyors are produced in standard pre-galv. plate. Chains and wheels are treated with liquid paraffin.
- Belts in elevators are fitted with belts suitable for use with foodstuffs. Elevator buckets in steel.
- Gear motor and bearings are greased with non-toxic oil.

The new facility will be a fully-modern facility designed in accordance with the latest principles with regard to food safety in accordance with Eurocode building and construction standards.



SILO FACILITIES FOR FISH FEED AT CARGILL

Niels Christensen - nch@cimbria.com



From a Cargill Aqua Nutrition subsidiary in Norway, EWOS, we have received an order for a finished product silo for storing fish pellets before shipping.

The site is situated in the very north of Norway, close to Tromsø in the town of Bergneset, where EWOS has one of its three production locations for fish feed in Norway.

The plant consists of a silo system with 27 silo cells. The silo has been raised, with a steel deck being mounted at a height of approx. 6 m. Below the deck, there will be a flat storage area for storing big-bags. As the silo is designed for storage of fish feed pellets, the importance of gentle handling of the product has very high priority.

After the feed pellets leave the production department, they will be sifted on two sieves mounted in a tower above the silo. After the sieves, there are buffer bins and the pellets are transported from here to the storage bins by a robot car.

In the silo cells, speed retarder chutes will be mounted to ensure that absolutely no unwanted breakages or similar occur.

Below the silo, belts will be mounted for onward transport to an existing ship-loader.

As the silo is due to be installed so close to the sea, the silo walls and decks will be delivered as hot-dip galvanized. Even though the silo will be clad, a decision was made to go for galvanized surface treatment in order to provide as much protection for the steel as possible.

The galvanized treatment was approved in order to ensure suitability for storage of feed.



WATCHDOG ON DUTY

Michael Kjær Søgaard - mks@cimbria.com

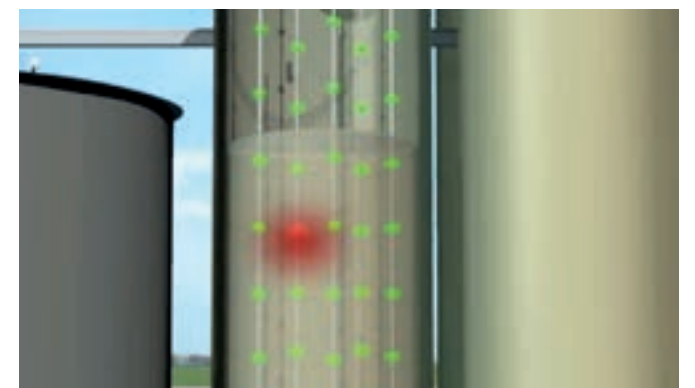


The Cimbria Temperature Monitoring System (TMS) is a well-known and valued product recognised for its high reliability, easy installation and operation.

With reference to these parameters, Cimbria was contacted by Oleum, a Belgium-based, family-owned business with several years of experience in the production of vegetable oils for industrial use. Oleum needed a temperature monitoring system to provide high security for the storage of valuable materials in their 60 silo installations. However, before committing to the complete order, Oleum decided to install Cimbria Unitest 5G software in one of its square silos to ensure that the system provided the necessary security and covered its requirements for safe storage of oil seed crops. After thoroughly testing the system for a period of time, the final order for the remaining 59 silos was placed.

The Cimbria Unitest 5G system provided Oleum with several great features, including the ability to set temperature for each individual sensor (not just in each silo), setting of DELTA alarm, various printing and language configurations and much more.

The feedback from the customer, however, was that the most important feature was an automatically generated e-mail that was received every day showing a graphical overview of all temperatures in the silos. This feature also meant that even during weekends, when no employees were at work, Oleum could be sure that the Cimbria Unitest system never failed to do its duty.



CIMBRIA SUPPLIES 10 COFFEE HULLERS TO CUBA

Wieland Bogdan - wbo@cimbria.com



According to historians, coffee was introduced into Cuba in the mid-18th century. By the 1820s, coffee production was an integral part of the Cuban economy, certainly more important than sugar. Motivated by a need for quality and facing higher demand, the industry is now trying to modernise the existing industry in order to meet international demand and standards. Most of the good coffee coming out of Cuba these days is exported to Europe.

From 1986 to 1996, coffee exports averaged 12,600 tonnes a year, compared to only 11,200 tonnes exported in 1957 when the output totalled 43,600 tonnes. However, poor harvests in the late 1990s have taken their toll on exports, falling from 24,120 tonnes in 1994 to 6,400 tonnes in 1997, before recovering slightly to 8,400 tonnes in 1998. Today, export revenue from coffee amounts to just 1% of the total value of Cuban exports, down from 3.9% in 1956.

The HANSA Huller and the HANSA 10 make up the ideal combination of a huller and a polisher for treating both dry parchment

and cherry coffee of any kind. Its special feature is the gentle, yet complete, "blunt hulling" capability by means of the fluted broad hulling cheeks, completed by friction under pressure of the coffee inside the cylinder. In addition to the standard model, the machine is also available in a special version for polishing hulled coffee, with cylinder and cheeks made of phosphorous bronze and brass screens. This special method of polishing brings out the beautiful deep colour of the coffee beans.

Cimbria supplied ten HANSA SM14 Coffee Hullers in Cuba. The units were bought by the Ministry of Agriculture for the eastern part of the coffee regions of Guantanamo, Santiago de Cuba and Holguin. The units have been installed in existing facilities by Cimbria service personnel over a period of 2 weeks. Since Cuba is currently experiencing growing openness towards international industry, the timing is good for new investments, especially in the coffee and cocoa area, where strict demands exist in terms of quality.

THE MALTING BUSINESS

David Thompson - dth@cimbria.com



Cimbria UK has been involved in the malting industry for over 40 years and is a leader in supplying cleaning, drying and transport equipment for malting barley and dry malt processing equipment. There are 5 main malt production companies in the UK and they all have 3 or more sites producing malt for UK brewers and the distilling industry in Scotland. In 2015/16 our equipment was installed on 3 projects in the malting sector in different areas of the malting process.

Starting at the beginning of the malting process – barley dressing

Crisp Malting Group needed to replace their old barley dressers and hoped to improve the sample at the same time; they chose the Cimbria Delta 116 for the project. The building was quite restricted in terms of space, but due to improvements in cleaner design they were able to get greater screen area and a more effective aspiration system to clean out the dust and barley awns more effectively with the new cleaner. Improved quality of malting barley going to steep was achieved at a capacity of up to 23 tph. A Cimbria Delta 145 for cleaning malt at 30 tph was also included within the scope of this project.

The dressed malting barley then goes to be steeped, changing the density and flow characteristics of the barley. Moisture content is increased to 45% with some germination already taking place.

Bairds at Witham, one of Cimbria UK's longstanding malting customers, had a wet pumped blow line system for conveying steeped barley to the germination vessels that needed to be replaced. The Cimbria proposal was to use 6 x SUH 500 screws, discharging the steeps at 90 tph using low flight speeds to reduce damage to the germinating malting barley. De-watering outlets remove excess water from the conveyors, whilst hinged lids allow the machines to be cleaned down manually by pressure washer between batches.

The customer is pleased with the robust equipment. Discharge capacity has exceeded expectations and the system has helped improve germination yield of the malting barley.

Steeped barley then germinates in vessels to become green malt and is kiln-dried to become the final product – malt. The malt is de-culmed and dressed prior to going out to customers in bulk or bag.

Simpsons Malt wanted to upgrade its existing 20 tph malt dressing plant. The existing equipment wasn't fast enough, so Cimbria proposed 2 x 146 Combi Cleaners mounted back-to-back, which would easily give 60 tph dressing and polishing of the malt prior to bulk discharge for delivery to its customers.

Cimbria continues to develop equipment for the malt production process and recognises the importance of this sector to its business.



Delta renser hos Crisp Malting Group



Transportsnegle hos Bairds i Witham



Cimbria combi renser hos Simpsons Malt