

SEED PROCESSING.



An expert
at your side.



Our Experience. Your vision.

Cimbria is more than the equipment we produce. We are professionals who thrive on building creative solutions to bring your vision to life. We've been doing it since 1947. We combine the right technology with the right team to bring it all together. Our purpose is your success. You can feel confident because you have an expert at your side – helping you grow into the future.



Complete Seed Processing.

Cimbria is one of the world's leading manufacturers of processing solutions. Based on in-house technology and experience, we have the capability to carry out the full design and supply of turnkey seed processing projects. You can count on our experts throughout the entire process.

When designing process plants and solutions, we use our knowhow to ensure that all parts of a plant work together seamlessly and that daily operations and subsequent maintenance run as smoothly as possible. Robust project management supports the assurance of safety that lies in our products and project execution. From the placement of your order to the end of your warranty, you have an experienced and dedicated senior project team at your side.





Gentle Handling at Every Step.

Gentle handling of products is key to meet your expectations for quality and hit your operational goals. Cimbria's equipment is specifically designed to respect your harvest and increase your production efficiency, with the ultimate goal to prepare your product for better storage.



Start Your Seeds Right.



DELTA Pre-Cleaner.

Cimbria combines well-balanced oscillation with a highly effective pre-suction and after-suction system to remove light impurities from the material at the inlet and outlet for efficient and accurate screen cleaning.



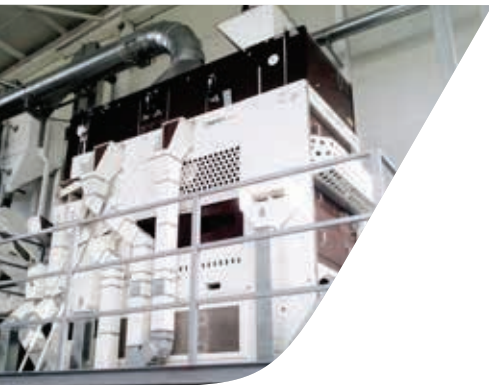
Aspirator.

The Cimbria Aspirator can be used both as a pre-cleaner and after-cleaner aspirator for the effective extraction of dust, glumes, etc. The aspirator efficiently reduces the very fine dust content in the seed, typically before chemical treatment.



Clean, Grade and Sort Choose the Best.

It is critical that seed is thoroughly cleaned. The fine cleaning process is carried out with high precision to ensure the best quality of seeds by removing dust and foreign impurities, as well as kernels with low germination capacity. Grading into many different fractions is sophisticated work. For the final sorting process, Cimbria has developed a unique technique for sorting according to length, thickness, width, weight, shape and colour. During the grading process, seeds of almost identical size can be separated due to Cimbria screens being available in more than 900 different sizes in increments as small as 0.05 mm.



Fine cleaning.

The Cimbria range of Delta machines is able to perform the best possible cleaning due to vibratory feeding that ensures completely uniform feeding and distribution across the screens. Moreover, the highest % apertures on the market ensure maximum utilization of each square metre of the screen. Delta Super cleaning lines are equipped with an air lifting system which enables light kernels, which typically cannot germinate, to be lifted out into the waste product.



Flat Screen Grading.

When using a Cimbria Delta flat screen grader, width and thickness grading will be carried out by combining the optimum screen aperture and screen slope with the length and frequency of the stroke. The product will be separated into the different fractions required. In terms of grading, in particular, Cimbria's unique multiple flow diagrams in our Delta graders outperform the rest of the market.



Cylindrical Grading.

The incoming material is sorted according to its width (round perforation) and its thickness (slotted perforation), respectively. All kernels thinner than the screen holes fall through the screen, and all thicker kernels remaining in the screening cylinder are transported to the end-outlet. By means of the permanent circulation of the product and the resulting centrifugal force, each kernel will come into contact with the screen perforation, thus enabling sorting operations to be carried out with a high degree of accuracy.



Indent Cylinder Separation.

Separation is carried out by means of an indent cylinder which is used for separating seed kernels by length and for separating unwanted long or short product impurities. Depending on the required grading, the incoming product will be sorted according to roundness and length.



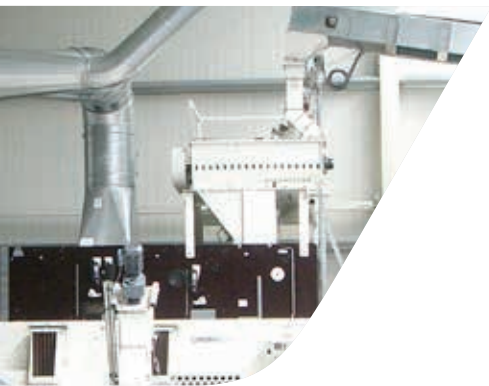
Special Care is All You Need .

Various seeds have special processing demands, like for instance to separate shells, break up clusters of seeds, brush and polish. Our experience with a great variety of products in different climate conditions has given us the right experience to help you create the ideal processing flow for your business.



Gravity Separator.

The product processed by the Gravity Separator is separated into layers with different specific weights according to the “fluid bed” principle. The deck is fluidised by a completely uniform pressurised air system stratifying the light material to the top of the product bed and allowing the heavy material to come into contact with the deck surface. The deck is inclined from side to side and inlet end to discharge end at adjustable angles.



De-Awner.

Cimbria De-awners are employed mainly for de-awning of barley, breaking up clusters of beet seed and for surface polishing of grains and vegetable seeds, thereby improving appearance and increasing the bushel weight. The inclusion of a De-awner with its cluster breaking action will greatly improve the performance of subsequent machines in the cleaning system. The de-awning process is usually carried out before cleaning, based upon the quality and type of grain or seed and the required quality of the finished product.



Mechanical Surface Treatment.

Cimbria Delta Brush Machines are suitable for handling grass seeds and clovers, as well as separating double grasses. They are likewise used for removing the hairy tails from the germ end of oats. The brush machines are totally enclosed, dustproof, and provided with an aspirator spout for connection to the general dust collecting system or to a separate fan and cyclone.



Destoner.

Destoners are used for separating various seed products according to their specific weight into two fractions in dry material condition. The goal is the elimination of heavy impurities, such as stones, metallic particles and other foreign bodies from seed products.



Optical Sorting.

The SEA colour sorter range features Full colour RGB cameras together with SWIR and UV technology and LED lighting system to meet the needs of modern seed processing.

SEA Optical Sorters have the ability to detect and reject seeds having either non-conforming colours or shapes with extreme precision and sorting speed.



A large industrial optical sorting machine, likely a CIMBRIA model, is shown in a factory setting. The machine is green and white, with a complex structure of metal frames and conveyor belts. A large green diagonal overlay covers the left side of the image, containing the main text. The background shows the industrial environment with various pipes and structural elements.

Sort Your Products with the Highest Precision.

Optical sorting uses the most advanced technology to sort micro-sized foreign bodies and defects which cannot be distinguished by human eye. The different set of cameras applied in our range of optical sorters are conceived to accomplish various kind of sorting, with extreme accuracy and speed.





Protect Seeds with Coating.



Centricoaters.

Prior to being sown, the seeds have to be protected against attack by fungi and pests.

Cimbria seed treaters are suitable for all types of liquid or powder treatment. Multiple contact of each seed surface with the atomized treating agent in the mixing drum ensures exact and uniform coating of the seed surface. A closed vacuum system ensures zero pollution with no aerosol leakage.



Jog Conveyor Drying.

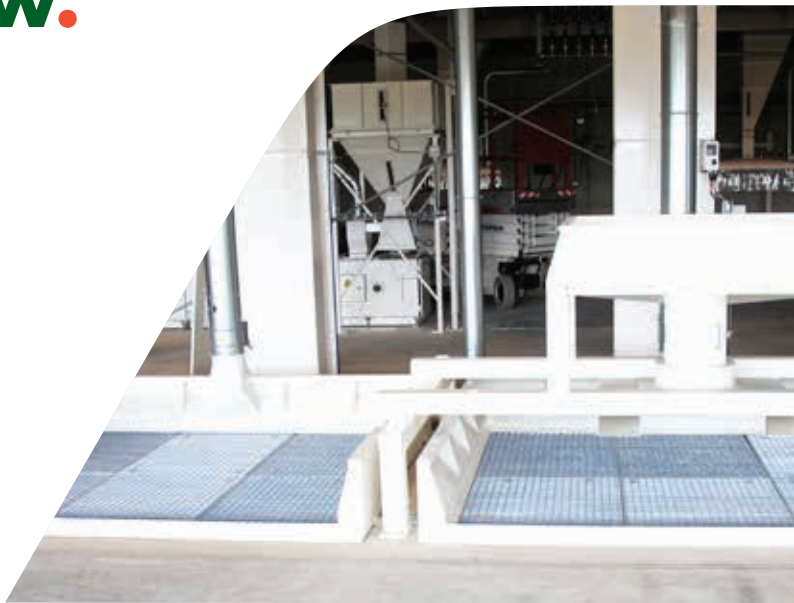
Jog Conveyor Dryers are mainly used after the coating process to prevent wet kernels from “caking” during bagging off. The wet product is transported by means of an eccentric drive through the drying sections, where warm air is blown through the product layer from underneath.

The moist air is aspirated from the top and led to a plant that removes dust. There is an option of installing a screening section at the end of the machine to screen out undersized and oversized material, thus improving the environmental protection aspect during sowing, for both farmers and bees.

Complete your Processing Flow.

Intake.

Cimbria intake systems are designed and manufactured to fit the specific requirements of each individual product and plant. Our focus is to secure gentle handling of the seed and to minimize waste and dust emissions to reduce the impact on the environment. Furthermore, intake systems have to have a robust design to be able to reliably handle the incoming product with high hourly capacities during start-up and the stressful harvest.



Conveying.

Plant mechanization is key for performance. Our range includes belt, screw, angle and chain conveyors together with loading chutes, bucket elevators, pendulum bucket elevators and square piping systems.

All our solutions are designed to be customized and to offer a reduced energy consumption and minimal wear.

Aspiration.

Sophisticated Cyclofans removing dust by means of centrifugal force, or high end filter plants using very fine filter bags for dust removal. A good aspiration system is key to protect both workers and the environment.

Packing.

Flexible packing lines for overwrapping and palletizing.





Take Full Control Over Your Processing Plant.

The remote plant monitoring provides benefits to the management at all levels, to improve safety, reliability, and competitive advantages. Connected with your ERP system, our control solutions are able to collect and distribute information between products, machinery and the system for optimized plant performance.

Management and Control.

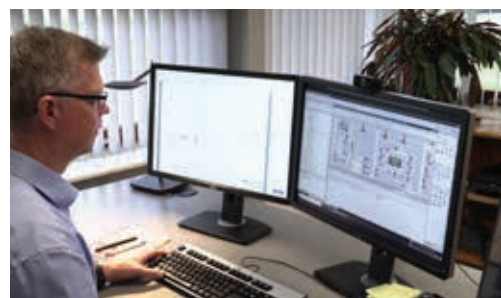
The Cimbria control system combines our many years of process experience with the latest technology. This is your guarantee that all installed machines operate at their optimum performance, minimizing downturns and thereby ensuring the best efficiency of the entire system throughout the lifetime of the plant.



Scada System.

The Scada system is tailor-made for operation, monitoring and alerts and it can be controlled by the operator from one or several locations. In order to facilitate daily operation, all routes are saved and can be easily accessed.

Our preferred system is WinCC from Siemens - a powerful, userfriendly, high performance PC based Human-Machine Interface (HMI) together with Microsoft Windows.





A Full-Range of Seed Processing Solutions.

Screen Cleaning.



DELTA Super Fine Cleaners 100-108 Series

Capacity up to 25 t/h
Screen area 0.96 - 24 m²



DELTA Super Fine Cleaners 112-118 Series

Capacity up to 25 t/h
Screen area 3 - 24 m²



DELTA Screen Graders 122 - 128 Series

Capacity up to 25 t/h
Screen area 3 - 24 m²



DELTA Pre-Cleaners 132 - 159 Series

Capacity up to 250 t/h
Screen area 5 - 24 m²



DELTA Combi Cleaners 143 - 159 Series

Capacity up to 250 t/h
Screen area 7 - 24 m²



DELTA Mega Cleaners 162 - 168 Series

Capacity up to 450 t/h
Screen area 22 - 38 m²

Cylindrical graders.



ZS 300 - 500 - 700 Single cylinder series



ZS 300 - 500 - 700

Up to 6 cylinders in a battery.
Available into parallel operation (P), series operation (S) or both (PS)

Indented Cylinders.



HSR 1010-16010 R/L

Round / Long grain cylinder



HSR 1010-16010 R-RN/L-LN

Round grain/long grain cylinder with regrader



HSR 1020-16020 R/L

Round grain and long grain cylinder battery



HSR 1020-16020 R-RN/L-LN

Flour mill separator with round and long grain regrader

Gravity Separators.



LAB GA

Deck surface of 0.19 m²



GA 31

Deck surface of 0.9 m²



GA 71

Deck surface of 1.5 m²



GA 110

Deck surface of 2,2 m²



GA 210

Deck surface of 3,4 m²



GA 310

Deck surface of 5,4 m²





De Awner And Brush Machine.



**DE-AWNER
DELTA 183 - 184**
Capacity up to 60 t/h



**BRUSH MACHINE
DELTA 181.1 - 181.4**
Capacity up to 4 t/h

Destoner.



**VACUUM
DESTONER
TS 90 - TS 360
Series**
Capacity up to 20 t/h



**PRESSURIZED
DESTONER
TS 200 - 400 Series**
Capacity up to 30 t/h

Centricoater.



CENTRICOATER
Capacity up to 50 t/h



**CONTINUOUS
TREATER
KB 10 - 50 Series**



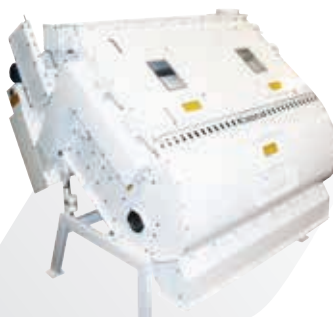
**JOG CONVEYOR DRYER
JCD 625 - 1800 Series**

Other Seed Equipments.



VELVET ROLLER SRM 200

Capacity up to
200 kg/h



ROTOCLEANER 149 Series

Capacity up to 150 t/h



DRUM SCALPER DS 1250

Capacity up to
500 t/h



DRUM SCALPER VA 900

Capacity up to 100 t/h



DRUM SCALPER VA 251

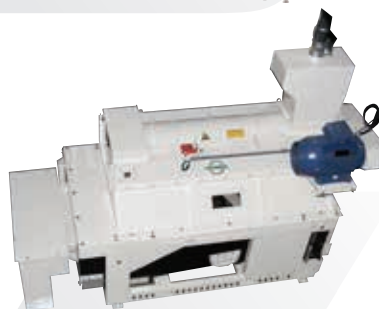
Capacity up to
50 t/h



BELT SORTER BS 1 - 3



MAIZE SHELLER MR 20



MR 20 / DELTA 191.2



AIR SIFTER STS 1000



DRUM SCALPER VA 1200

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