SEA.TN

OPTICAL SORTING

CIMBRIA

An expert
at your side.

Global Pioneer
in Optical Sorting.

To find the right optical sorter for your business, you need a partner you can rely on. One who understands your biggest sorting challenge, allows you to **put their solutions to the test** and offers **expert advice**. You need **support at every stage** of the selection of the solution, installation and after-sales process.

Cimbria has been helping customers succeed for more than 75 years. With a wide range of technologically advanced and user-friendly optical sorters to sort seeds, grains, food commodities and industrial products, you can feel confident you will get **the right system tailored to your business**.

Hi-Tech Made Easy.

With global industry experience, Cimbria makes high-tech simple. **SEA.TN** has the right technology to help you deliver the highest quality.

Suitable for a wide range of products, including those for human consumption, animal feed or non-food commodities. The multispectral vision system with RGBN cameras scans the visible and invisible spectrum. Like all Cimbria optical sorters, SEA.TN has been designed to maximize energy efficiency.
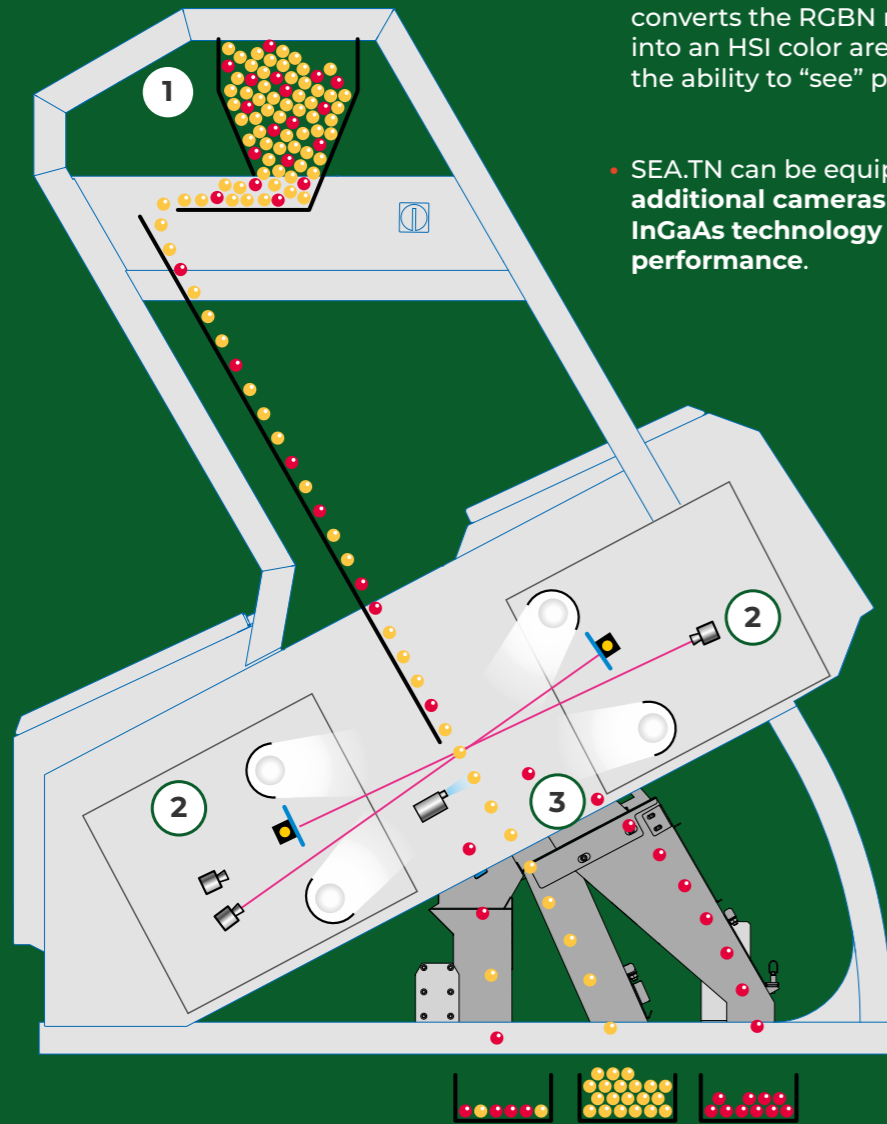
The Vision System.

1. In-feed system
2. Vision system
3. Ejection system

• SEA.TN is equipped with **smart Full-color RGB cameras with integrated NIR**. Compared to the set parameters, the images of each element are processed and identified as conforming, defect or foreign elements.
The defect parameters are adjustable from acceptable to imperfections. The vision system converts the RGBN measurements into an HSI color area to maximize the ability to "see" products.

• SEA.TN can be equipped with **additional cameras featuring InGaAs technology to optimize performance**.

Characteristics.

01. IN-FEED SYSTEM
• SEA.TN can be divided in 4 different sections working independently
• Extremely smooth surfaces allow ideal infeed into the inspection unit

02. VISION SYSTEM
• Full-colour RGBN smart cameras with 0.06 mm optical resolution
• The image processing system compares the object to your customized accept or reject parameters to ensure the best results

03. EJECTING SYSTEM
• Rapid firing ejectors guarantee precise expulsion and highly concentrated rejects

04. ELECTRONICS
• The SEA.TN hardware is organized in easily replaceable electronic boards
• Self-diagnosis and self-calibration functions maintain consistent sorting performance
• Several custom-made sorting recipes can be stored on board
• A USB port is available for programs backup

05. STRUCTURE
• Pressurized and conditioned optical boxes prevent dust entering
• An airtight structure prevents dust and product outflow
• Easy product collection and sampling
• Standard colour RAL 9003. Customized colours or stainless steel available upon request.

SCAN THE QR
TO SET UP
YOUR TRIAL

PUT US TO THE TEST

Send us your toughest sorting challenge. Cimbria's multiple testing centers are available for customizable lab trials worldwide. Let our experts recommend the best solution.

Food

Grains

Seeds

Recycling

CIMBRIA

Service First.

Cimbria and its authorized local partners offer and **exclusive after-sales service**, always providing qualified assistance.
The after-sales service not only includes the supply of spare parts, but also supports in routine maintenance and plant check-up.

SEA.TN is supplied and installed by Cimbria's highly skilled technical staff. You can rely on them every step of the way, with in person training, remote assistance, and annual maintenance services.

Cimbria, an expert at your side.

PLEASE DOWNLOAD THE DATA SHEET FOR MORE TECHNICAL INFORMATION

Easy to Use Human Machine Interface.

A **large and bright touch screen** allows the operator to control and program in a **very simple** way. It is from here that **dedicated programs are easily set, based on the desired result**. The image processing system compares the object with user-defined acceptance or rejection parameters in order to identify it as a true defect or as an accepted item.

The HMI software allows the user to set the defect size and hue.

SEA.TN can be connected to the company network as well as to remote assistance systems, allowing the exchange of information in real time and solutions that **support the most modern industries**.

MACHINE TECHNICAL DATA

			1	1.5	2	3	4	5	6	7
Dimensions	Length	mm - inch	1093 - 43.03	1093 - 43.03	1700 - 66.93	1700 - 66.93	2125 - 83.66	2125 - 83.66	2675 - 105.32	2675 - 105.32
	Width	mm - inch	1690 - 66.54							
	Height	mm - inch	2100 - 82.68							
Weight		Kg - lbs	700 - 1544	750 - 1654	950 - 2095	1000 - 2205	1150 - 2536	1200 - 2646	1400 - 3086	1450 - 3197
No. of vibrating feeders / chutes			1	1.5	2	3	4	5	6	7
No. of cameras (front+back)			2 - 3	2 - 3	4 - 6	6 - 9	8 - 12	10 - 15	12 - 18	14 - 21
No. ejectors / chutes			54	77	108	162	216	270	324	378
Compressed air consumption (max value at 6 bar)		l/min - m³/h	300 - 18	450 - 27	600 - 36	900 - 54	1200 - 72	1500 - 90	1800 - 108	2100 - 126
Power supply / Frequency		V/Hz	230 / 50 - 1 Ph (L + N + PE)							
Power absorption - Power consumption (max. value)		A - kVA	2.9 - 0.7	2.9 - 0.7	5.8 - 1.4	5.8 - 1.4	8.7 - 2	8.7 - 2	10.5 - 2.4	10.5 - 2.4

CERTIFICATIONS

- CE conformity certificate
- 2006/42/CE on machinery safety

- 2014/30/CE on Electromagnetic Compatibility
- Compatible with UL and CSA standards
- ATEX standards Certificate (option)

The pictures and technical data herein mentioned are indicative only and can be subject to changes. We reserve the right to change them at any time without prior notice.

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