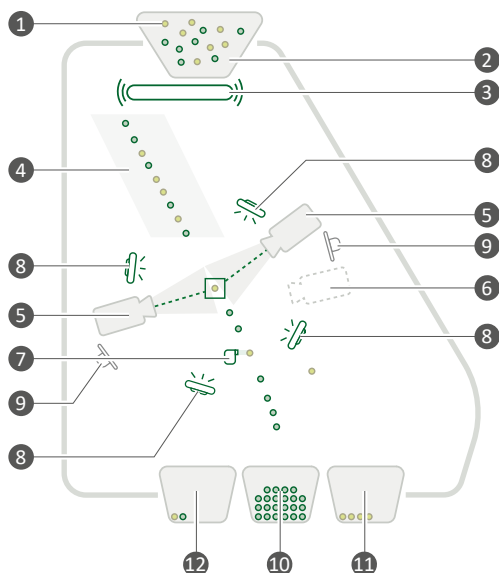
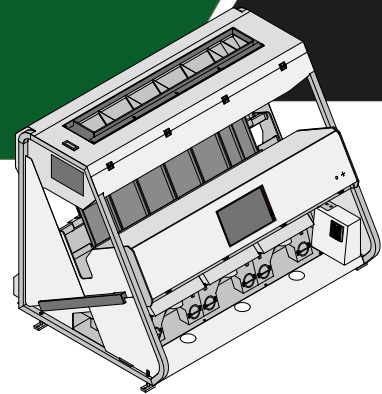


SEA.XE

As standard in its base configuration, the **Cimbria SEA.XE** optical sorter delivers **advanced Full-Color multispectral technology with integrated ultra-high-resolution NIR imaging. Combined with optional SWIR multispectral cameras**, it provides outstanding sorting performance and meets the most stringent quality requirements across virtually any application and industry.



PROCESS

1. Product infeed
2. In-feed hopper
3. Vibrating feeder
4. Feeding chute
5. Full-Color cameras with integrated NIR
6. SWIR cameras (optional)
7. Ejection system
8. LED Illumination system
9. Active backgrounds
10. Accept outlet
11. Reject outlet
12. Rebound outlet



MAIN CHARACTERISTICS

- Available configurations include resort, double resort and reverse sorting
- High-fidelity image acquisition accurately reproduces the optical characteristics of the actual products
- Color analysis capabilities comparable to human vision and infrared detection to go beyond.
- Remote control, diagnostics and recipe programming capabilities

ELECTRONICS

- Electronics, control boards and lighting systems are designed for easy upgrades and replacements over time
- Self-diagnostic and automatic calibration functions
- Ethernet connectivity enables real-time remote monitoring and support
- OPC UA (Open Platform Communications Unified Architecture), an industrial interoperability standard enabling data exchange and use across different systems and applications (optional)

EXPULSION SYSTEM

- Standard 5 mm pitch with 63 solenoid valves per channel
- Solenoid valves operate at up to 1,000 actuations per second, with a certified service life of up to 2 billion cycles
- Fully configurable ejection parameters, with independent adjustment of activation timing and pulse duration to suit the application and product characteristics

OPTICAL SYSTEM

- The base version features RGBN multispectral cameras, combining Full-Color RGB and integrated NIR imaging on both front and rear sides. With 16 million colors, infrared detection at highest optical resolution, the inspection system delivers detection capabilities beyond human vision
- Patented SWIR camera detection system delivers performance beyond conventional quality standards
- RGBU multispectral version with Full-Color RGB and integrated UV imaging on both front and rear sides
- Defect detection and classification by size, shape and extent
- LED lighting and reference system
- High-precision sorting powered by BRAIN™ Cimbria's unique Artificial Intelligence algorithm

MECHANICS

- 320 mm-wide chutes
- Available in 1 to 6-channel configurations
- Optional 50/50 chute split, available on the last chute
- The pressurized, airtight optical cabinets prevent dust ingress, ensuring consistent optimal performance over time
- Programmable automatic cleaning system
- Easy maintenance and cleaning

SEA.XE

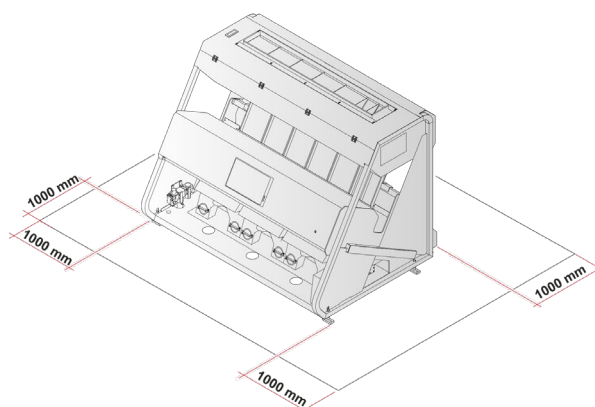
- Windows® platform for supervision and control, with secure integration into industrial and corporate networks through standard protocols
- 21.5-inch HD color touchscreen provides excellent visibility even in low-light conditions
- Intuitive multilingual interface for quick and easy recipe programming and control
- Easily customizable recipes with unlimited storage, named according to operator requirements
- Mark-good/mark-bad function and out-of-good programming mode
- Active synoptic display of machine status, including vibrators and sensitivity settings
- Real-time monitoring of throughput, sorting performance and rejects
- Data backup (optional)

- Automatic product level control in the hoppers
Level sensors ensure a consistent product feed into the sorter and maintain optimal performance
- PLC status
- Alarms and guided instructions for restoring operation



Model	Configuration
SEA.XE	Standard version: Full-Color RGB cameras with integrated NIR imaging (front/rear)
SEA.XE R	SWIR version: Full-Color RGB cameras with multi-frequency SWIR cameras on the front side
SEA.XE V	UV version: Full-Color RGB cameras with UV imaging

- Stabilized power supply: 230 V (L+N+PE), 208 V (L+N+PE), 240 V (L1+L2+PE), 50/60 Hz
- Grounding: the machine must be connected to a dedicated grounding system to comply with local and international safety requirements and ensure optimal operation
- Pneumatic system consisting of a rotary compressor, air receiver, filters and a dehumidifier meeting the following air quality classes:
 - ISO 8573-1:2010 [5:4:3] for NON-FOOD PRODUCTS
 - ISO 8573-1:2010 [1.2.1] for FOOD PRODUCTS
- Compressed-air supply pipe with a minimum diameter of 1 in
- Support frame (minimum clearance of 1 meter on each side)*
- In-feed and outfeed hoppers (optionally supplied by Cimbria)



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TECHNICAL DATA

- Standard color: RAL 9003 white (custom colors available)
- Operating ambient temperature: +5°C to +40°C
- IP5X protection rating
- CE Declaration of Conformity
- Designed in compliance with the new Machinery Regulation (EU) 2023/1230; compatible with UL and CSA standards
- Food Contact Materials (MOCA) certification (optional)

SORTER TECHNICAL DATA

		1	2	3	4	5	6
							
No. of chutes		1	2	3	4	5	6
Chute width	mm	320	640	960	1280	1600	1920
No. of solenoid valves		63	126	189	252	315	378
Compressed-air consumption (max. value at 6 bar)	l/min	320	640	960	1280	1600	1920
Compressed-air supply pipe	Ø [inch]	1"					
Stabilized power supply / frequency	V/Hz	230 (L+N+PE), 208 (L+N+PE), 240 (L1+L2+PE), 50/60 Hz					
Current consumption (max. value)	A	1.7	3.3	5.0	6.7	8.4	10
Power consumption (max. value)	KW	0,3	0,6	0,9	1,2	1,5	1,8
Dust extraction manifold	n°	1	1	2	2	3	3
Manifold diameter	Ø [mm]	120	120	120	120	120	120

ASPIRATION REQUIREMENTS (not included)*

Chutes	1	2	3	4	5	6
	m³/h	m³/h	m³/h	m³/h	m³/h	m³/h
Air requirement**	1000	1000	2000	2000	3000	3000

* For correct operation of the extraction system, allow for a static pressure of 150 mm H2O (~0.015 bar)

** Minimum airflow rates required for processing highly contaminated products

DIMENSIONS

Modelli	1		2		3		4		5		6	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
Width	1360	53,54	1360	53,54	2040	80,31	2040	80,31	2720	107,09	2720	107,09
Depth	1950	76,77	1950	76,77	1950	76,77	1950	76,77	1950	76,77	1950	76,77
Height	2040	80,31	2040	80,31	2040	80,31	2040	80,31	2040	80,31	2040	80,31

WEIGHT (kg/lbs)

	1		2		3		4		5		6	
	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs
Weight	932	2056	1081	2383	1229	2710	1377	3037	1564	3447	1750	3858