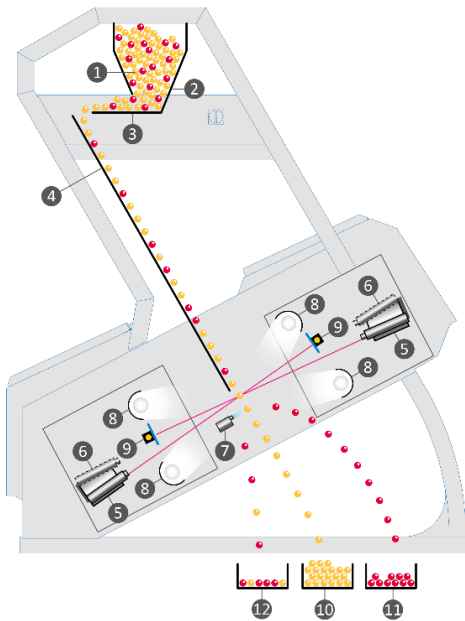


SEA.TR

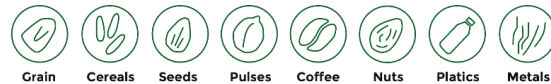


This range of machines combines the extremely high production capacity with a multispectral vision system of RGB full-color and NIR technologies. SEA.TR separates even the smallest color and shade differences from almost any bulk commodity, to meet the strictest food hygienic and healthy requirements on end-products.



PROCESS

1. Product to sort
2. In-feed hopper
3. Vibrating feeder
4. Feeding chute
5. RGB Full-Color smart cameras
6. NIR, InGaAs cameras (option)
7. Ejectors
8. Lights
9. Backlights
10. Sorted product
11. Reject
12. Bounce output



MAIN CHARACTERISTICS

- Up to 4 sections for simultaneous resorting
- Available configured with re-sorting, re-resorting or reverse sorting
- Image acquisition and color analysis respect reality
- Can be controlled and reprogrammed even remotely with the customer's specific recipes

ELECTRONICS

- Organized in easily replaceable electronic boards using the latest technology
- Self-control functions (self-diagnosis and self-calibration) guarantee excellent operational stability
- The Windows 10® embedded graphic interface assures an easy connection to company network and to remote assistance systems
- Ethernet connection allows real-time monitoring and web-based remote assistance

EXPULSION SYSTEM

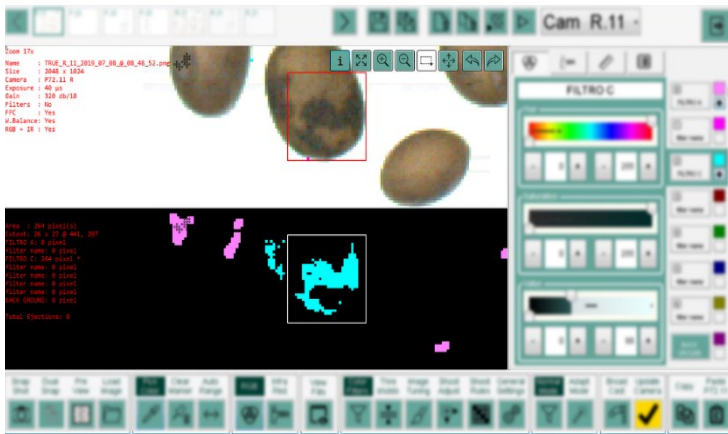
- N.54 Ejectors per chute
- Ejectors working speed up to 1,000 cycles/s guaranteed up to 2 billion cycles
- Ejection time and duration adjustable according to needs

OPTICAL SYSTEM

- SEA.TR standard version is equipped with ultimate 4096pixels full-color RGB smart cameras (front & back) working in the visible spectrum
- CMOS technology
- Additional NIR and/or InGaAs cameras can be combined
- Scan rate: 18.000 scan/s
- Optical resolution: 0.06 mm
- The software can control 7 families of defects
- LED lighting and active background

MECHANICS

- Available from 1 to 7 chutes
- Reversible chutes
- Tilting optical boxes simplify cleaning and maintenance
- Pressurization and airtight structure prevent dust entering
- Automatic programmable cleaning system
- Cooling system to grants the ideal temperature inside the optical boxes
- Pre-arrangement for the aspiration system installation



USER INTERFACE

- 15" color touch screen with capacitive feature for perfect visibility in low light conditions
- By photographic acquisition, the image processing system compares the object to user-defined accept or reject elements
- Main information and functions:
 - Machine status (vibrators and sensitivity on/off each section)
 - Recipes (up to 45 stored in the machine)
 - Level sensors (product control inside the hopper)
 - Alarms and smart explanation to restore functions, in case of anomalies
 - Total and partial hour counter
 - Daily progressive backup
- OPC systems allowing:
 - The connection between two or more sorters
 - The control of several sorters from a single control station

SEA.TR CONFIGURATION

Front		Back	
T	+	T	Standard version. n.2 RGB Full-Color smart cameras/chute (front&back)
T	+	TN	n.2 RGB Full-Color smart cameras/chute (front&back) + n.1 additional NIR camera/chute (in the back-side)
TN	+	TN	n.2 RGB Full-Color smart cameras/chute (front&back) + n.2 additional NIR camera/chute (front&back)
T	+	TR	n.2 RGB Full-Color smart cameras/chute (front&back) + n.1 additional InGaAs camera/chute (back-side)
TR	+	TR	n.2 RGB Full-Color smart cameras/chute (front&back) + n.2 additional InGaAs cameras/chute (front&back)
TN	+	TR	n.2 RGB Full-Color smart cameras/ chute (front&back) + n.1 additional NIR camera/chute (front-side) + n.1 additional InGaAs camera/chute (back-side)

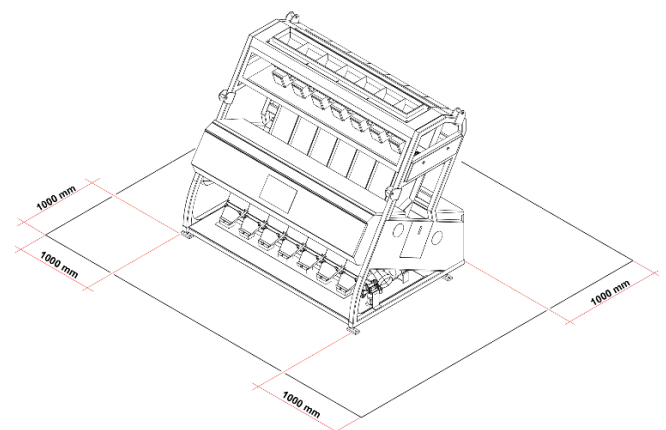
T= RGB Full-Color smart Camera / N=NIR Camera / R=InGaAs Camera

* On request, the pre-wired **Plus** version is available to accept additional cameras in future

EXTERNAL EQUIPMENT REQUIRED FOR THE CORRECT WORKING*

- 230 V - 50 Hz single-phase power supply
- Voltage stabilizer (strictly necessary)
- Pneumatic system including rotary compressor, tank, filters and dryer
 - ISO 8573-1:2010 [5:4:3] for NON-FOOD PRODUCTS
 - ISO 8573-1:2010 [1.2.1] for FOOD PRODUCTS
- 1" minimum diameter air supply hose
- Supporting frame (minimum one meter of free space each sides)
- Additional infeed and discharging hoppers (option)
- Product conveyors systems
- Fast internet connection

*Customer must provide and install the above











Leave at least one meter of free space around the sorter

TECHNICAL DATA

- White RAL 9003 Standard (custom colors as option)
- Working temperature in workrooms min +3°C max+35°C
- IP 55 protection
- 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)
- Sorting machine in stainless steel AISI 316 L (option)

MACHINE TECHNICAL DATA

		1	1,5	2	3	4	5	6	7
									
No. of vibrating feeders/chutes		1	1.5	2	3	4	5	6	7
No. of cameras (front+back)		2-4	2-4	4-8	6-12	8-16	10-20	12-24	14-28
No. ejectors/chutes		54	77	108	162	216	270	324	378
Compressed air consumption (max value at 6 bar)	l/min	300	450	600	900	1200	1500	1800	2100
	m ³ /h	18	27	36	54	72	90	108	126
Compressed air hose	∅	1"							
Power supply/ frequency	V/Hz	230/ 50 - 1 Ph (L + N + PE)							
Power consumption (max. value)	kVA	0,7	0,7	1.4	1.4	2	2	2,4	2,4
Power absorption (max. value)	A	2,9	2,9	5,8	5,8	8,7	8,7	10,5	10,5

DIMENSIONS (mm/in)

	1		1,5		2		3		4		5		6		7	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
Length	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	1690	66,54	1690	66,54	1690	66,54	1690	66,54	1690	66,54	1690	66,54	1690	66,54	1690	66,54
Height	2100	82,68	2100	82,68	2100	82,68	2100	82,68	2100	82,68	2100	82,68	2100	82,68	2100	82,68

WEIGHT (Kg/lbs)

	Kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs
	Weight	700	1544	750	1654	950	2095	1000	2205	1150	2536	1200	2646	1400	3086	1450