

sorton

Color Sorting Machines



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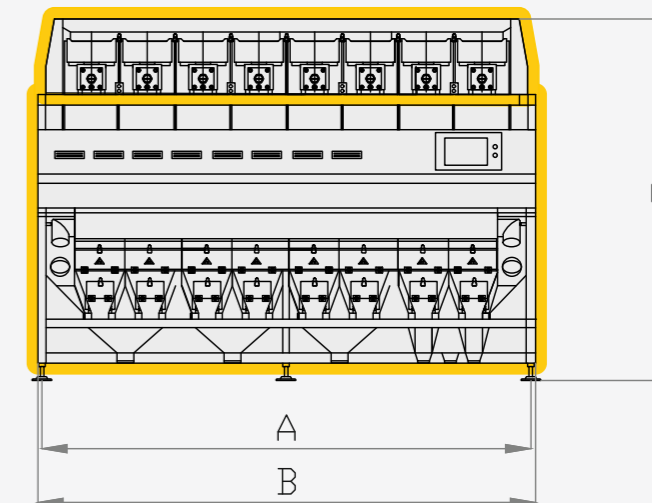
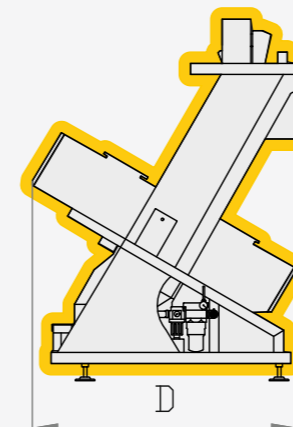
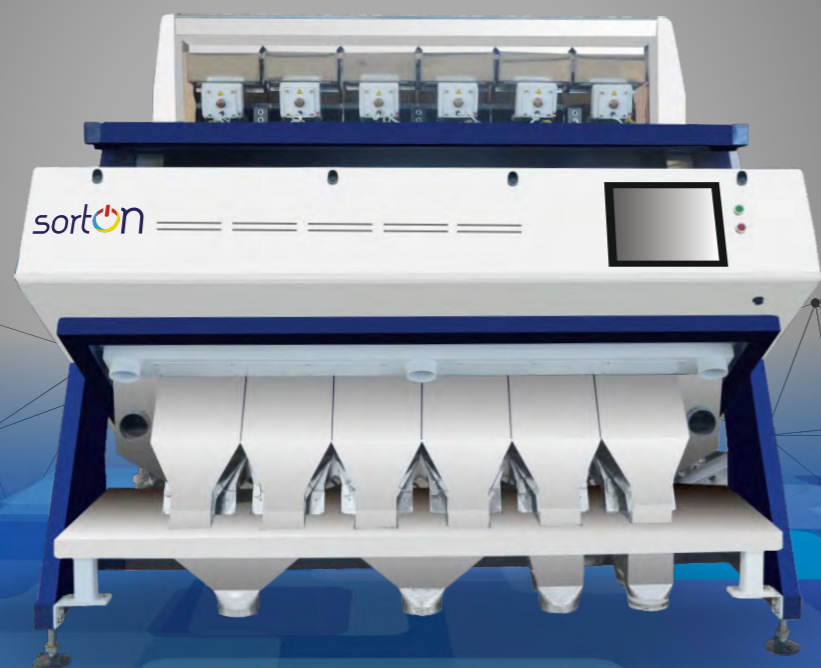
Color Sorting Machines

SORTON MAKİNA İTH. İHR. TİC. LTD. ŞTİ.
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We Take You One Step Ahead
Of Your Competitors...



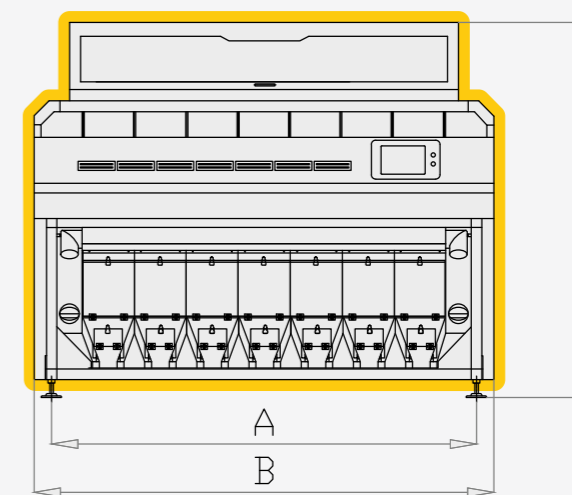
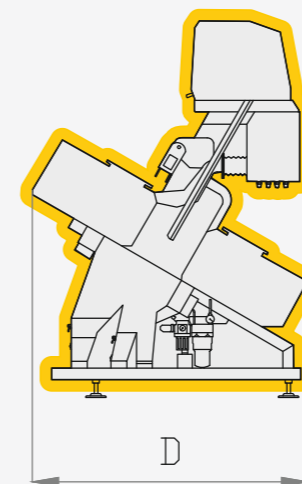


| MODELS | DIMENSIONS (mm) | | | |
|------------|-----------------|------|------|------|
| | A | B | C | D |
| ZEUGMA C4 | 1715 | 1765 | 2150 | 1565 |
| ZEUGMA C6 | 2250 | 2400 | 2150 | 1565 |
| ZEUGMA C8 | 2890 | 2950 | 2150 | 1565 |
| ZEUGMA C10 | 3640 | 3700 | 2150 | 1565 |

SORTON ZEUGMA CG+ SERIES PROPERTIES

- **Zeugma Series Color Sorter** - Intelligence makes a difference. Grain color sorting machine is a new multi-purpose color sorter, which offers color selection work of soybeans, corn, beans, peanuts, beans, pepper, chickpeas and a series of agricultural products, grains and cereals as well.
- **Multi Dimension**-Targets the spectral and spatial difference and offers the solution that best suits the requirements.
- **Unsupervised Self-Learning** - Understanding customer's needs better, through the curve incision algorithm, iterative optimization and mathematical modelling.
- **Enhanced Detection of Subtle Color Variation** - Makes commissioning easier for the most complex sorting applications.
- **The HD Micron Color Camera With 160 Million Pixels** - Ability to detect 130 million colors. 5400CCD sensor + HD low-distortion camera.

| MODELS | ZEUGMA C4 | ZEUGMA C6 | ZEUGMA C8 | ZEUGMA C10 |
|---------------------------------------|-------------------|-------------------|-------------------|-------------------|
| Ejector Number | 240 | 360 | 480 | 600 |
| Sensor | 5400 CCD | 5400 CCD | 5400 CCD | 5400 CCD |
| Voltage (V) | 180-240, 50Hz(Ac) | 180-240, 50Hz(Ac) | 180-240, 50Hz(Ac) | 180-240, 50Hz(Ac) |
| Machine Power(kW) | 2.6 | 3.2 | 3.6 | 4.2 |
| Air Consumption (m ³ /min) | ≤4.0 | ≤5.5 | ≤6.5 | ≤8.0 |
| Air Pressure (Bar) | 6-8 | 6-8 | 6-8 | 6-8 |
| Temperature(C°) | 5-35 | 5-35 | 5-35 | 5-35 |
| Dimensions(mm) | 1765*1570*2143 | 2400*1570*2143 | 2950*1570*2143 | 3700*1570*2143 |
| Weight(kg) | 1050 | 1450 | 1800 | 2200 |

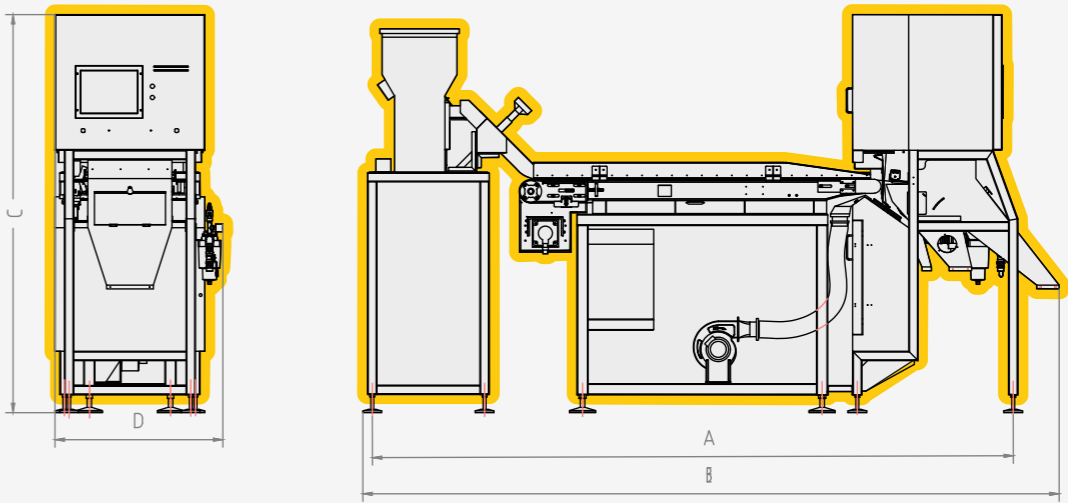


| MODELS | DIMENSIONS (mm) | | | |
|-----------|-----------------|------|------|------|
| | A | B | C | D |
| ARIANA C3 | 1250 | 1455 | 2150 | 1570 |
| ARIANA C5 | 1877 | 2075 | 2150 | 1570 |
| ARIANA C7 | 2200 | 2625 | 2150 | 1570 |

SORTON ARIANA CF + SERIES PROPERTIES

- **Ariana Series AI Sorter** - Shape and color sorting machine beyond your expectation.
- **The HD Micron Color Camera With 160 Million Pixels** -Ability to detect 130 million colors. 5400CCD sensor + HD low-distortion camera.
- **Top level LED Light Source System** - Consists of high brightness, low temperature and long life lighting possibility.
- **15 inch Super Smart Control Screen** - Intelligent display for more efficient and more convenient control of the machine.
- **Intelligent Shape Selection Technology** - Has unique shape recognition technology for the perfect result.
- **Advanced Interconnection System** - Can have functions for remote connection, operation and alarm alerting.
- **High Capacity Process Chip** - Process steps are now more effective due to the scanning speed of more than 10000 times per second.
- **InGaAs Infrared System** - Effectively removes damaged products from the product stream to ensure excellent quality.

| | ARINA C3 | ARIANA C5 | ARIANA C7 |
|--------------------------|---------------------|---------------------|-------------------|
| Ejector Number | 180 | 300 | 420 |
| Sensor | 5400 CCD | 5400 CCD | 5400 CCD |
| Voltage (V) | 180 - 240, 50Hz(Ac) | 180 - 240, 50Hz(Ac) | 180-240, 50Hz(Ac) |
| Machine Power(kW) | 1.8 | 2.4 | 3.5 |
| Air Consumption (m³/min) | ≤ 3.0 | ≤ 4.5 | ≤ 6.0 |
| Air Pressure (Bar) | 6 - 8 | 6 - 8 | 6 - 8 |
| Temperature(°C) | 5-35 | 5-35 | 5-35 |
| Dimensions(mm) | 1455*1570*2142 | 2075*1570*2142 | 2625*1570*2142 |
| Weight(kg) | 940 | 1330 | 1650 |



| MODELS | DIMENSIONS (mm) | | | |
|----------|-----------------|------|------|------|
| | A | B | C | D |
| 30 LD2 | 3424 | 3720 | 2127 | 896 |
| 60 LD2 | 3421 | 3727 | 2494 | 1296 |
| 60 LD4 | 3325 | 3590 | 2140 | 1788 |
| 120 LD2 | 3274 | 3549 | 2144 | 1861 |
| 120 LD4 | 3325 | 3590 | 2140 | 2368 |
| 120 LDS2 | 3152 | 3842 | 2769 | 2274 |

SORTON BELT-TYPE SERIES PROPERTIES

- **LD Series Mutli-Function AI Sorters** - The multi-vision technology for sorting without blind spot.
- **The Belt Transmission System** - Smooth landing for reducing broken rate.
- **Premium Stainless Steel** - Waterproofing rated to IP66. Waterproofing of the sorting chamber rated to IP54.
- **The HD Micron Color Camera With 160 Million Pixels** - Ability to detect 130 million colors. 5400CCD sensor + HD low-distortion camera.
- **New LED Light Source** - Stability of the power supply is highly upgraded, the life-spam of LED is extended and the cost has been reduced.
- **Improved Automatic Error Checking and Detection Function** - Automatic recognition of ejector, light control panel, electric motor and other faults.
- **Industry-** Leading intelligent shape extraction technology- our machine can sorting products according to not only the color of the material but also the shape and size.

| MODELLER | 30LD2 | 60LD2 | 120LD2 | 60LD4 | 120LD4 | 120LDS | 120LDS2 |
|--------------------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Ejector Number | 60 | 120 | 240 | 120 | 240 | 480 | 480 |
| Voltage (V) | 180-240(50HZ) | 180-240(50HZ) | 180-240(50HZ) | 180-240(50HZ) | 180-240(50HZ) | 180-240(50HZ) | 180-240(50HZ) |
| Machine Power(kW) | 1.5 | 2.0 | 3.0 | 2.0 | 3.5 | 4.5 | 4.5 |
| Air Consumption (m³/min) | 6-8 | 6-8 | 6-8 | 6-8 | 6-8 | 6-8 | 6-8 |
| Air Pressure (Bar) | ≤1.0 | ≤1.8 | ≤3.6 | ≤1.8 | ≤3.6 | ≤4.5 | ≤4.5 |
| Dimensions(mm) | 3660*900*2110 | 3570*1200*2120 | 3500*1800*2120 | 3565*1780*2140 | 3565*2480*2140 | 3390*2110*2360 | 3850*2275*2770 |
| Weight(kg) | 700 | 900 | 1100 | 950 | 1350 | 1500 | 1700 |



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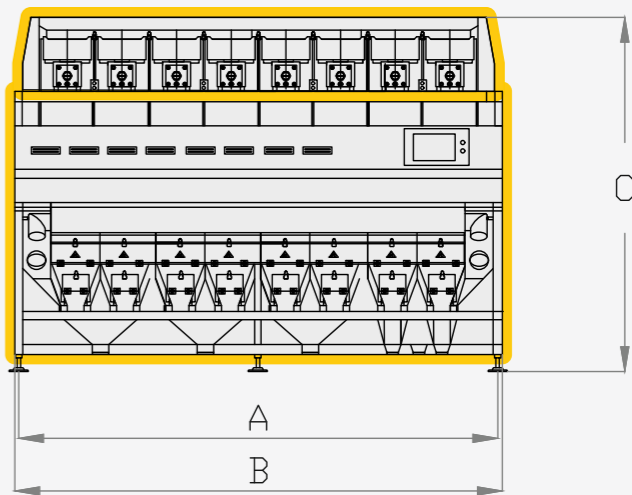
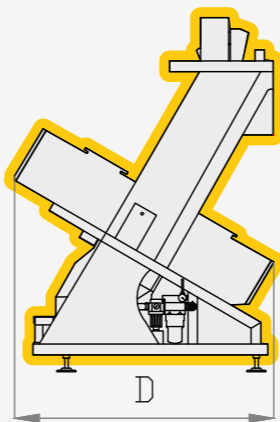
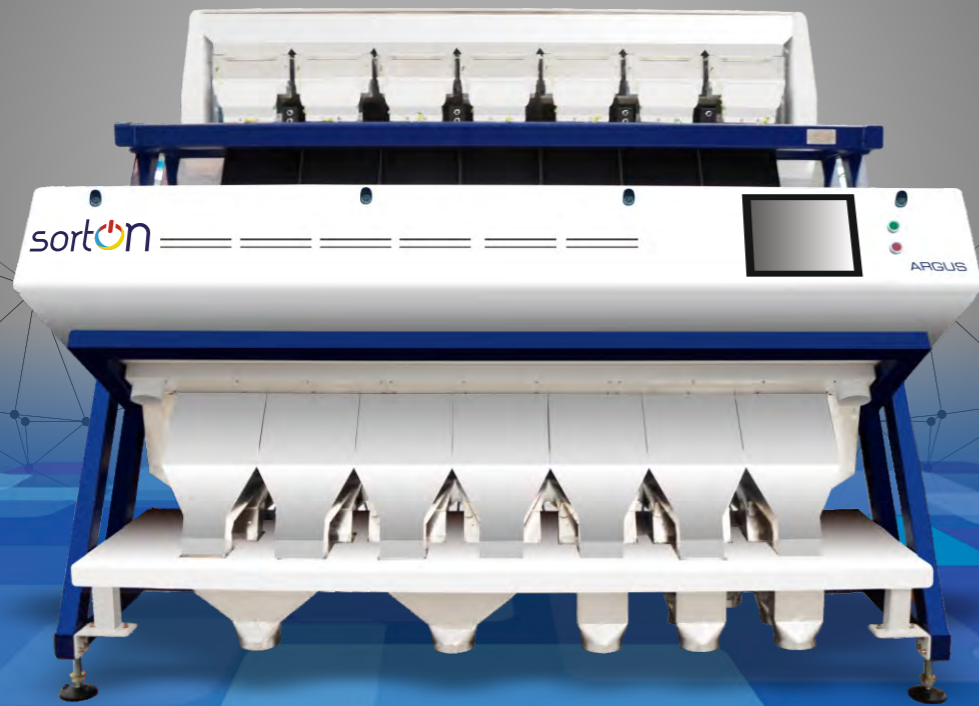
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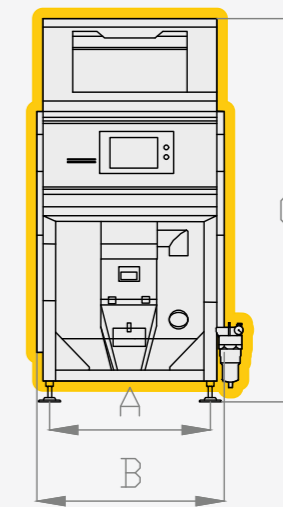
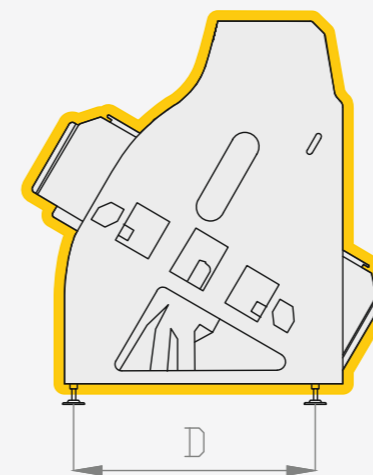


| MODELS | DIMENSIONS (mm) | | | |
|-----------|-----------------|------|------|------|
| | A | B | C | D |
| ARGUS C4 | 1715 | 1765 | 2150 | 1565 |
| ARGUS C6 | 2250 | 2400 | 2150 | 1565 |
| ARGUS C8 | 2890 | 2950 | 2150 | 1565 |
| ARGUS C10 | 3640 | 3700 | 2150 | 1565 |

SORTON ARGUS SERIES PROPERTIES

- **Argus Series Sesame/Rice Specialized Sorter** - High efficiency and stable sorting performance.
- **Super Brain Detection-Unsupervised Self** - Learning technology(delivers the sorting solution that best suits your requirements).
- **The HD Micron Color Camera With 160 Million Pixels** - Ability to detect 130 million colors. 5400CCD sensor + HD low-distortion camera.
- **One-Key Automation For Ease of Use** - The 4th generation unmonitored intelligent system. Incorporates sorting parameters into intelligent analysis 100%.
- **High Brightness, LED Light Source With Low Temperature Characteristics** - LED light to products without having any blind spot. Because of this lighting system the selection performance of the machine is even higher. Besides, the machine has a long life and does not require long service.
- **Automatic Background Adjustment Function** - Make ARGUS fast and easy.
- **Wide Chute Design** - Thanks to this design, the capacity can reach upto 25 ton per hour.
- **Nikon Lens** - Performance With Top level CCD sensor and lens, satisfies the expectations of the user and continues to be the market leader. Can be scan 30,000 times per second.
- **New Ejector Assembly** - This new ejector assembly is adapted to operate in the ARGUS range at 1 KHz. The ARGUS ejector system has a long life spam of over 8 million strokes and has an important role in maximizing the selection performance.

| MODELLER | ARGUS C4 | ARGUS C6 | ARGUS C8 | ARGUS C10 |
|--------------------------|---------------------|---------------------|-------------------|-------------------|
| Ejector Number | 240 | 360 | 480 | 600 |
| Sensor | 5400 CCD | 5400 CCD | 5400 CCD | 5400 CCD |
| Voltage (V) | 180 - 240, 50Hz(Ac) | 180 - 240, 50Hz(Ac) | 180-240, 50Hz(Ac) | 180-240, 50Hz(Ac) |
| Machine Power(kW) | 2.4 | 3.0 | 3.5 | 4.2 |
| Air Consumption (m³/min) | ≤2.0 | ≤3.0 | ≤4.0 | ≤5.0 |
| Air Pressure (Bar) | 6 - 8 | 6 - 8 | 6 - 8 | 6 - 8 |
| Dimensions(mm) | 1765*1562*2143 | 2400*1562*2143 | 2950*1562*2143 | 3700*1562*2143 |
| Weight(kg) | 950 | 1300 | 1600 | 1950 |



SORTON I-RIS SERIES PROPERTIES

- **Application Area** - Shelled nuts, Nuts and Seeds/Kernels
- **The Innovative Hyper-Spectral Infrared Technology** - The extraordinary sorting solution for shelled nuts.
- **The HD Micron Color Camera With 160 Million Pixels** - Ability to detect 130 million colors. 5400CCD sensor + HD low-distortion camera.
- **Complementary Stepless Dimming System - The LED Long** - Life serviceable light source with low temperature rise and high intensity. Automatically adjustable intensity of the lighting system under changing ambient conditions.
- **Long-Life Serviceable Ejector** - Provides an exceptional sorting performance over a longer period of time, lowering operating costs.
- **High Speed Infrared Sensor** - Ideal for separating tiny materials' damages.
- **Fully Spectrum of High** - Powered infrared light source system-high efficiency, long life-span and provides low price.
- **Automatic Image Correction Algorithm** - Prevents image-induced image disturbance.
- **Unique New Optical Design** - Due to this unique design, the performance of products selection is not negatively affected by the dust.
- **Perfect Interactive System** - Highest resolution, easier operation and self-detecting errors.

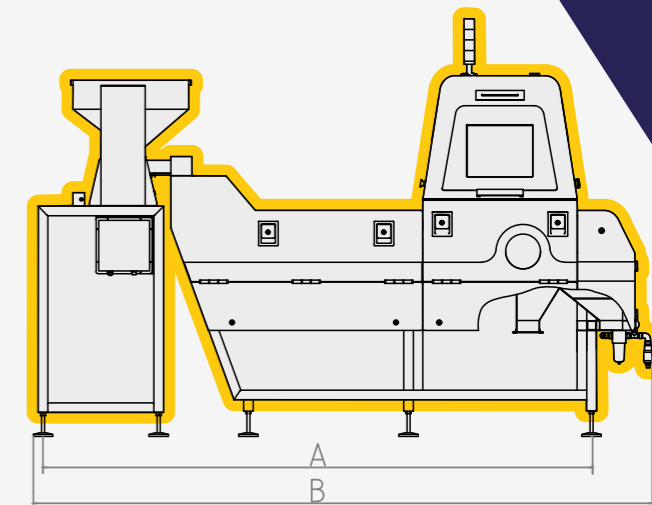
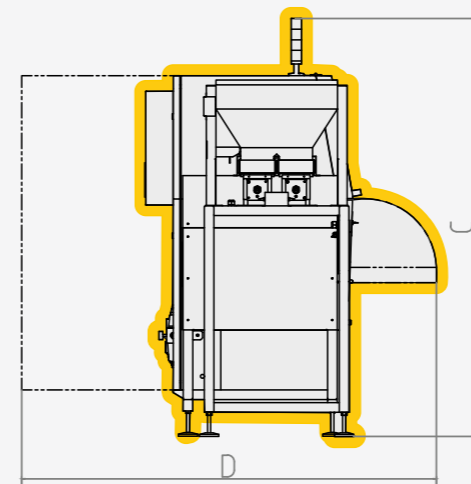
| MODELS | DIMENSIONS (mm) | | | |
|----------|-----------------|------|------|------|
| | A | B | C | D |
| I-RIS C1 | 852 | 992 | 2030 | 1854 |
| I-RIS C3 | 1644 | 1777 | 2030 | 1854 |
| I-RIS C5 | 2236 | 2568 | 2030 | 1854 |

| MODELLER | I-RIS C1 | I-RIS C3 | I-RIS C5 |
|--------------------------|-------------------|-------------------|-------------------|
| Ejector Number | 60 | 180 | 300 |
| Sensor | 5400CCD | 5400CCD | 5400CCD |
| Voltage (V) | 180-240, 50Hz(Ac) | 180-240, 50Hz(Ac) | 180-240, 50Hz(Ac) |
| Machine Power(kW) | 1.8 | 4.8 | 6.0 |
| Air Consumption (m³/min) | ≤ 1.0 | ≤ 3.0 | ≤ 4.5 |
| Air Pressure (Bar) | 6 - 8 | 6 - 8 | 6 - 8 |
| Temperature(°C) | 5-35 | 5-35 | 5-35 |
| Dimensions(mm) | 1088*1854*2030 | 1880*1854*2030 | 2568*1854*2030 |
| Weight(kg) | 700 | 1100 | 1300 |



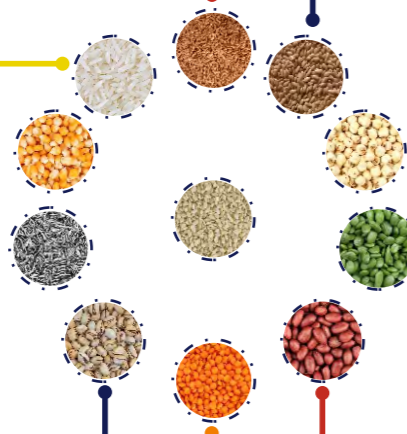
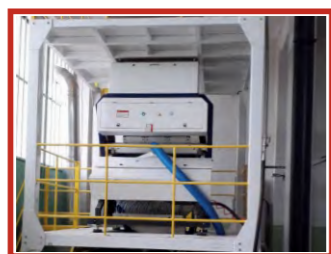
SORTON X-RAY SERIES PROPERTIES

- **Inspection of Foreign Materials** - Remove metal, stones, glass, sands and bones precisely.
- **Defects Inspection** - Detect and remove defects including the injured kernel and products with seeds left.
- **Micron Sensing System** - Makes sorting faster and more precise.
- **Multi-vision DR Technology** - Multi-angle DR imaging technology. Inspection without blind spot.
- **Long-life Serviceable Ejector** - The Magnetic Levitation Technology eliminates wear between rotor and ejector.
- **Black Shield Technology** - The intelligent analysis of the proprietary black shield system for different applications makes sure the most suitable and the cutting-edge parts will be taken.
- **Seamless Belt-type System** - The belt-type structure features the edge blending technology which keeps materials stable and improves imaging quality as well as ensures inspection precision.
- **Durability** - Waterproof,Fungi-proof,Anti-freezing,Anti-corrosion and Radiation Protection.
- **Large** - Larger capacities and higher yields. 3 tons of oil seeds per hour; 6 tons of beans per hour.
- **Fast** - The custom hardware system with inspection speed approaching 100 meters per minute and response time of the ejector 1 milisecond.
- **Ease of Use** - Equipped with a new and larger 17inch touch screen user interface, simplifying usability for the operator combined with the automactic trouble diagnosis system.
- **New** - All-new structure design combined with automatic monitor of materials delivers higher precision of removal.

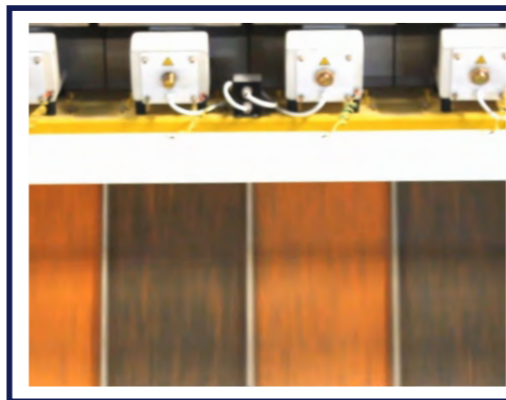


| MODEL | SS-X8084SSF - S |
|---------------------------------|--|
| X-Ray Out | 350W, 80kv/8mA |
| Interface | 17'' LCD Touch Screen |
| Conveyor Speed (m/min) | 10-100 |
| Strap Width (mm) | 470 |
| X-Ray Leakage Amount (μ Sv / h) | ≤1 |
| Protection Level | IP66, IP54 |
| Voltage (V) | 180-240(50Hz) |
| Air Consumption (m³/min) | ≤0.3 |
| Air Pressure (Bar) | 6 – 8 |
| Working Conditions | Ambient Temperature: 0-40°C, Relative Humidity(No condensation) :30-85% |
| Dimensions(mm) | 600 *1150*2100 |
| Weight(kg) | 600 |
| Sensitivity | Round ≥ Φ0.3mm, Flat ≥ Φ0,2*2 mm |

S REFERENCES

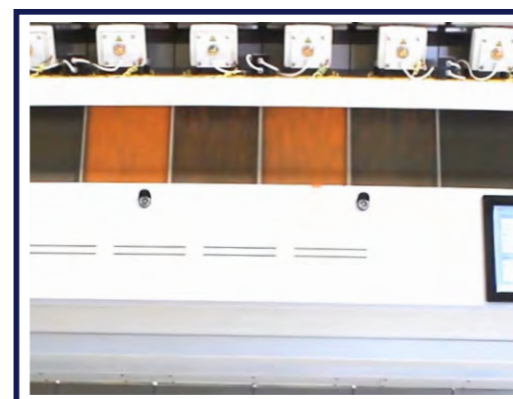


S APPLICATIONS



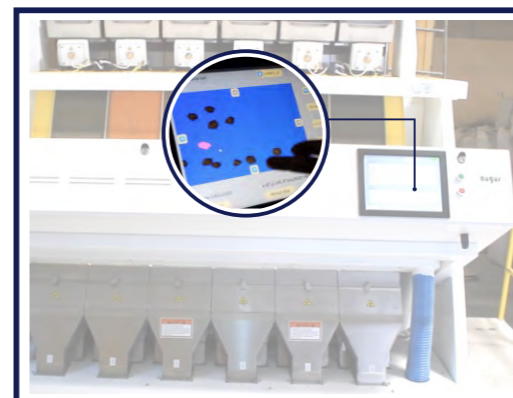
Wide Groove Design

Can help amending the machine's efficiency up to %50



Rich Shape Recognition Function

Obtain fine products with super specific selecting function called "Thorn Sorting"



15 inch Super Smart Control Panel

Smart panel lets you to use the machine more efficient and useful



Ultra-Sharp Color Sensor

160 million pixels, has power to select micro color differences

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Color Sorting Machines



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Color Sorting Machines

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