SORTEX A range.

The pinnacle of optical sorting.

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Breaking the mould - featuring Bühler's most sophisticated and versatile sorting capabilities, the innovative SORTEX A range delivers exceptional performance for the most challenging sorting applications.

Available in four variants - the standard SORTEX A, DualVision™, ColorVision™ and MultiVision™, demonstrate a commitment to providing processors with dedicated customised options to sort unique and customer specific sorting requirements.

Showcasing Bühler innovation with new advanced inspection and lighting systems, this state-of-the-art technology provides the ultimate sorting solution, whatever the difficulty of the application.

- **Empowering sorting performance**
- **Ensuring consistent operation**
- **Optimising productivity, lowering cost of ownership**

Developed for commodities
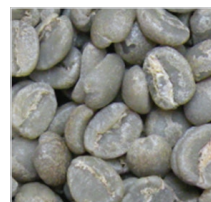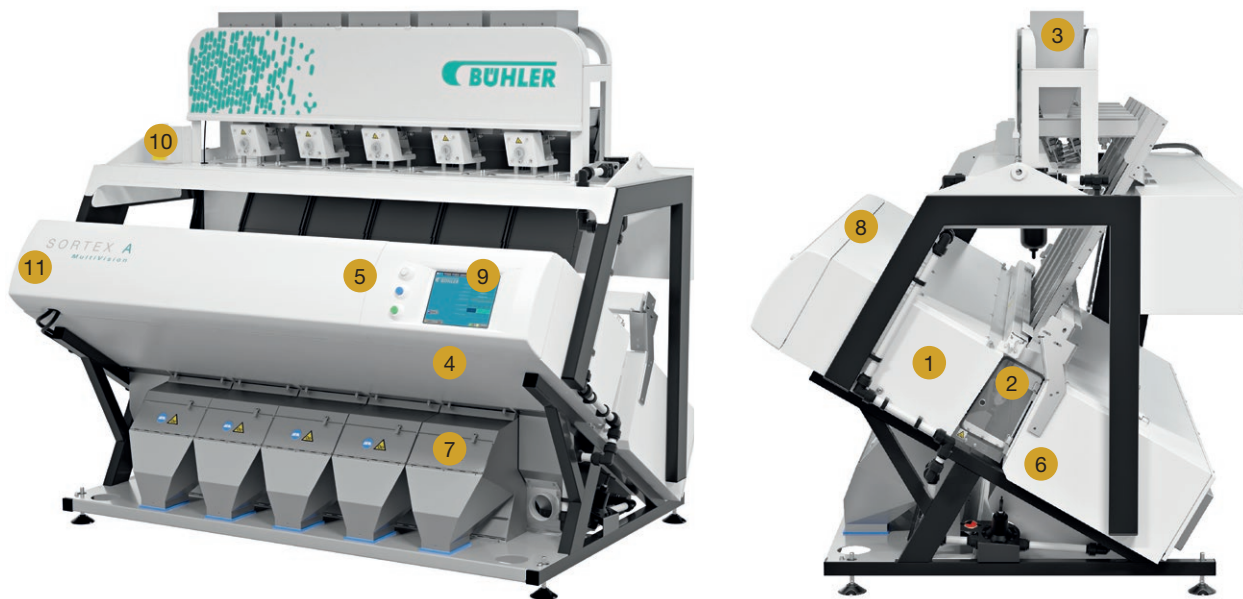

| Nuts | Seeds | Grains | Coffee | Pulses | Plastics |

SORTEX A optical sorter at a glance.

1 Advanced inspection system
Ultimate detection of all known defects and foreign material for the most complex sorting applications

2 Broadband LED Lighting
Flexible solid state LED lighting that improves illumination and enhances defect recognition

3 High capacity feed system
Available with up to five chutes for flexible sorting configuration

4 SmartEject™ technology
Fires precisely at the whole object to ensure efficient removal

5 Bühler's sorting software
Targets individual defects with unmatched processing speed

6 Automated Background
Background adjusts as light levels vary delivering consistent operation

7 Simultaneous re-sorting
Maximises recovery of good product by achieving the highest reject concentration

8 Sealed optical and control cabinets
Rated up to IP5X to protect against dust ingress maintaining a stable and reliable operation in dusty environments

9 Remote access for real-time monitoring
Real time monitoring by Bühler engineers of the performance of the sorter from anywhere in the world

10 Low power and air consumption
For reduced operational costs

11 ATEX Compliant
Certified for use in hazardous environments

SORTEX A variants.
Visible inspection system.

Bühler's comprehensive product portfolio has been carefully developed to offer processors the best solutions for conventional and challenging sorting applications. The SORTEX A range has four technology variants, each designed in different levels for defect detection.

What does each variant detect?

SORTEX A MultiVision™

| Good Product | Visible Defect 1 | Visible Defect 2 | Visible Defect 3 | Visible Defect 4 | Visible Defect 5 |

Subtle colour sorting
The MultiVision™ uses multiple visible wavelengths (for example: red, green and blue)

This can detect the subtlest colour variations.

SORTEX A ColorVision™

| Good Product | Visible Defect 1 | Visible Defect 2 | Visible Defect 3 |

Superior colour sorting
The ColorVision™ uses two visible wavelengths (in this example: red and green).

This can detect not only light and dark defects but also other colour variations.

SORTEX A DualVision™

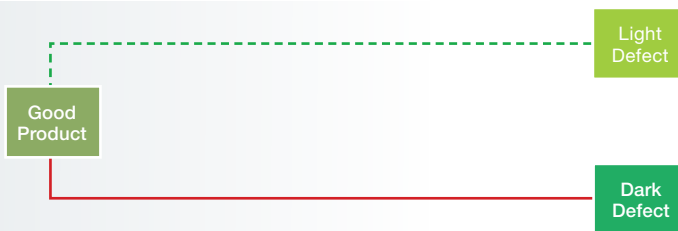Light Defect
Good Product
Dark Defect

Simultaneous light and dark sorting
The DualVision™ uses two visible wavelengths independently (in this example: red and green).

This is for detecting both light and dark defects simultaneously.

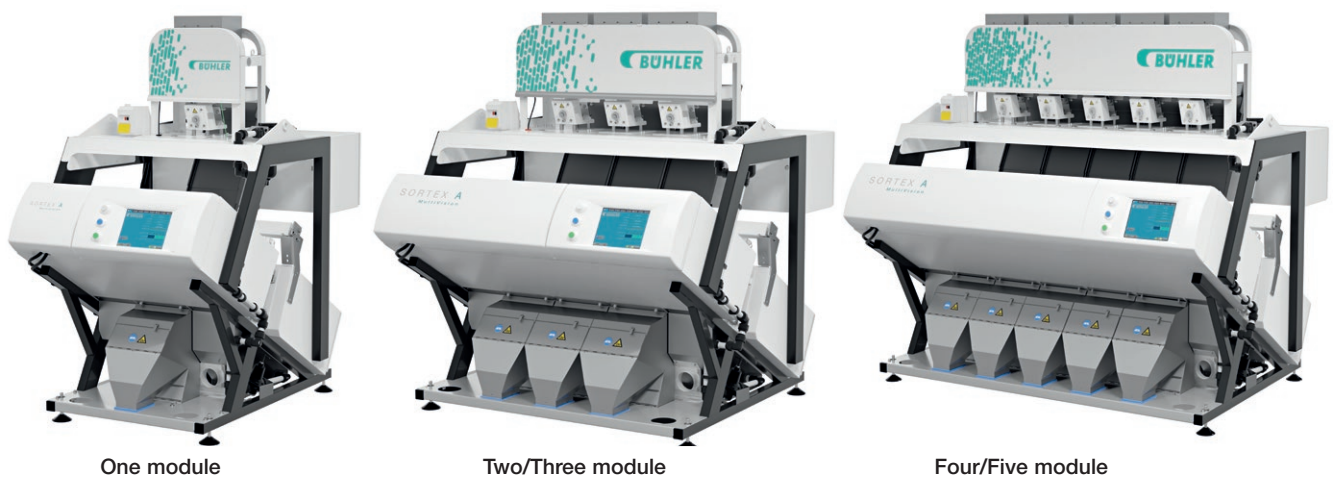### SORTEX A

Light Defect
Good Product
Dark Defect

Independent light or dark sorting
The standard SORTEX A uses one visible wavelength (in this example: either red or green).

This is best suited for mainstream colour sorting applications which include removing light or dark defects.

Frame sizes and features.

Process engineered with flexibility to handle small to large capacities, the SORTEX A range is available in one to five module versions, in three different frame sizes. Different features can be offered for different modules. Depending on requirements, the sorters also offer customised options tailored to processing needs.

One module

Two/Three module

Four/Five module

SORTEX A range features

	SORTEX A	SORTEX A InGaAs	SORTEX A DualVision™	SORTEX A DualVision™ InGaAs	SORTEX A ColorVision™	SORTEX A ColorVision™ InGaAs	SORTEX A MultiVision™	SORTEX A MultiVision™ InGaAs
Standard InGaAs		■		■		●		
Enhanced InGaAs						■		■
PROfile™ Shape					■	■	■	■
LED Lighting	■	■	■	■	■	■	■	■
IR Lighting		■		■		■		■
Climate Control	●	●	●	●	●	■	●	■
Remote monitoring	●	●	●	●	●	●	●	●
CE Certification	■	■	■	■	■	■	■	■
ATEX	●	●	●	●	●	●	●	●

■ Standard   ● Optional

SORTEX A benefits.
Empowering sorting performance.

Delivering superior product quality

The range and combination of Bühler's advanced, intelligent optical sorting technology enables the exclusive SORTEX A range to deliver superior product quality. The SORTEX A range inspection technologies provide the most profitable sorting performance in removing subtle colour variations and foreign material, reducing toxins including mycotoxins, and colour grading/grouping.

Ensuring a cleaner, safer product

Bühler's proprietary InGaAs and PROfile™ technologies remove foreign material that is the same colour as the good product, while flexible broadband LED and broad spectrum IR lighting can see defects within visible and infra-red range.

Flexibility and yield

The SORTEX A range is available in up to five modules and provide the highest sorting capacity helping to match varied capacity needs. The SmartEject™ system and simultaneous resorting capabilities ensure accurate product rejection and the highest reject concentration, thereby minimising loss of good product.

Ensuring consistent operation.

Consistent product quality
Auto-calibration and product tracking features provide consistent product quality through their unique to Bühler ability to effortlessly handle both changes in input and product colour variation.

Reliable operation
Sealed optical boxes rated up to IP5X ensure a stable and reliable operation in dusty environments, preventing dust ingress.

Stable performance
The advanced Climate Control System enables the sorter to operate successfully in some of the most challenging conditions. With a tolerance to temperatures ranging between 0°C and 50°C (32°F and 122°F) it can be relied upon to deliver consistent performance even in the harshest environments.

SORTEX A benefits.
Optimising productivity, lowering cost of ownership.
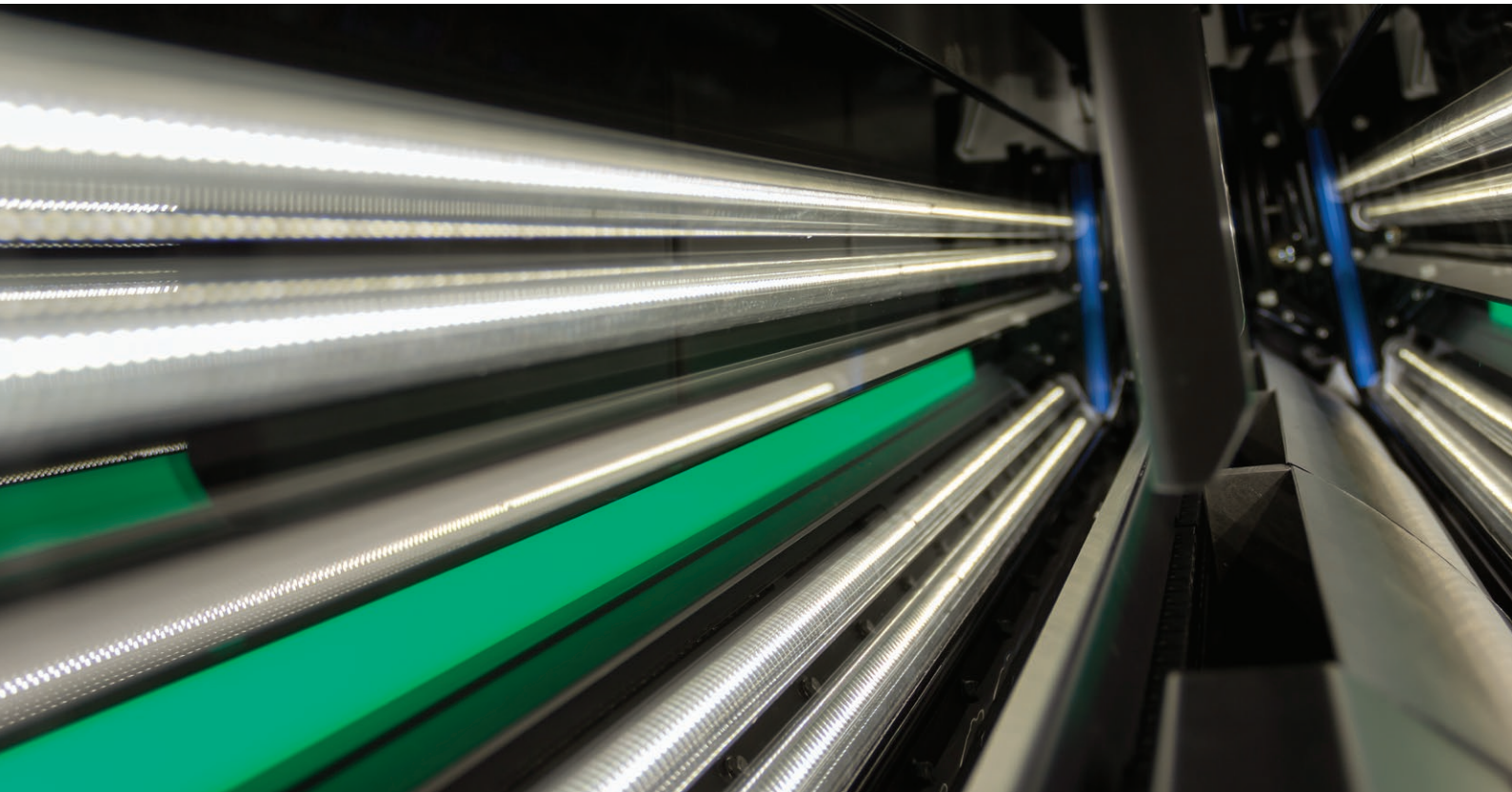
Peak performance
Solid state broadband LED lighting is extremely durable, which, in conjunction with our long-life serviceable ejectors, ensures the SORTEX A operates at its peak performance over a longer period of time.

Fast product changeover
The SORTEX A optical sorters are designed to enable fast product changeovers for multi-product sorting. The auto filter changer and different product modes handle multiple products, while the quick chute release system allows anyone to remove chutes without the need to re-align the optics, helping to facilitate different applications. This also has the advantage of making it simpler to clean and thus helps to improve hygiene.

Maximum up-time and lower operational costs
SORTEX AnyWare offers remote machine monitoring, alerts and access to support for Bühler's customers across the globe. This incredibly valuable system helps to maximise uptime and ensures quicker service responses. Careful power management reduces electricity costs and small high-pressure ejectors reduce air consumption. Energy efficient, long-life LED lighting and Bühler's reliable high-speed ejectors reduce maintenance cost.
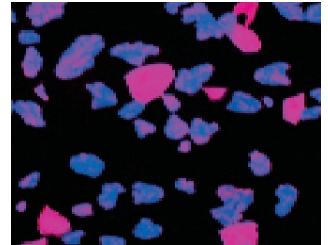
SORTEX A technology.
Innovation and leadership.

InGaAs Technology

Enhanced InGaAs technology can detect defects which cannot be seen in the visible spectrum providing much better separation of good product from foreign material of the same colour.
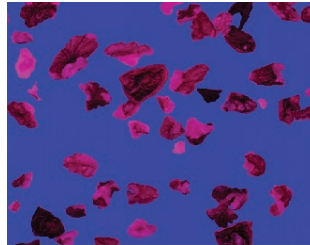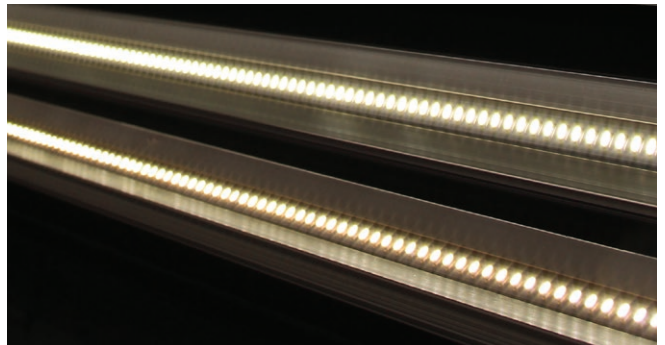

Visible camera frame capture   InGaAs camera frame capture

LED and IR Lighting

Flexible broadband LED and broad spectrum IR lighting can target defects within the entire visible spectrum as well as the infra-red (SWIR) spectrum.
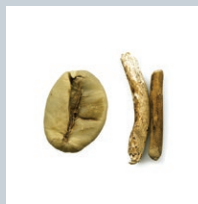

Flexible broadband LED lighting

PROfile™ Technology

This proprietary Bühler technology detects defects which are the same colour as the good product and foreign material. PROfile™ technology can sort objects by size, shape and colour.
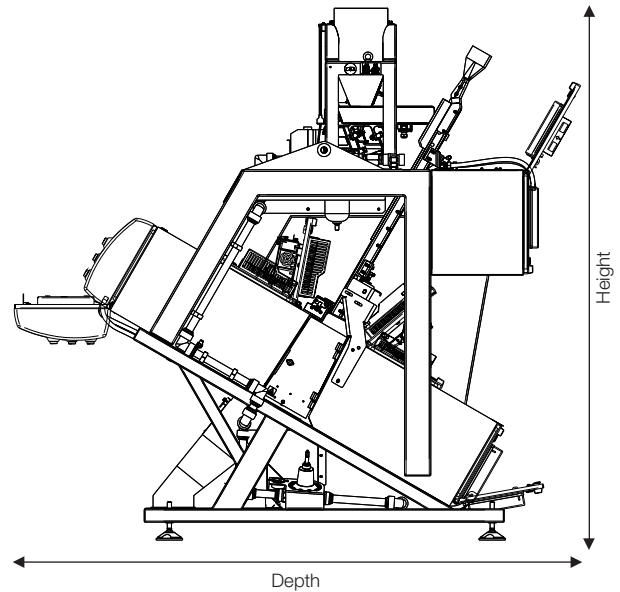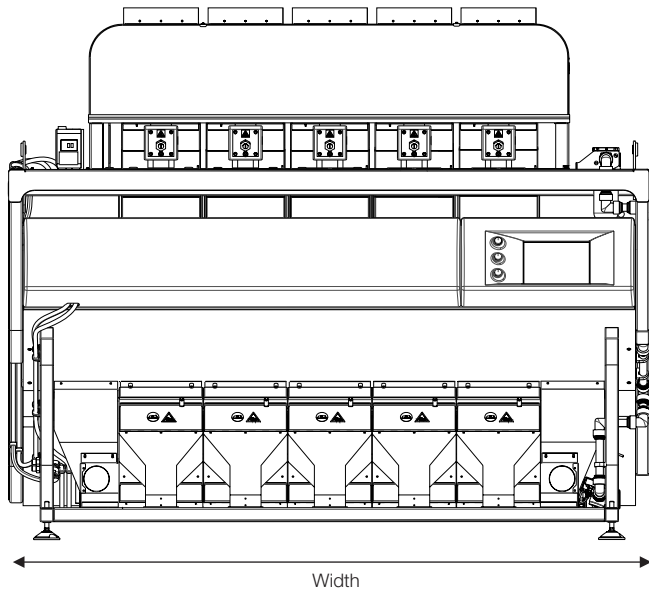

Removes foreign material for a cleaner and safer product

Under and over sized objects for greater value

Colour defects by individual or combined area defect detection

SORTEX A specifications.
Technical details.

Width

Height

Depth

Dimensions

Machine	Width mm	Depth (Doors Open) mm	Depth (Doors Shut) mm	Height mm
A1	1000	2333	1708	2088
A2	1788	2333	1708	2088
A3	1788	2333	1708	2088
A4	2387	2333	1708	2088
A5	2387	2333	1708	2088

Air and power requirements

Machine	Typical air requirements (L/s)* 72-102 psi (5-7bar)	Typical Power consumption (kW)** (200-240V; 50/60 Hz single phase)
A1	8	1.5
A2	16	2.3
A3	24	3.1
A4	32	3.4
A5	40	4.5

* Figures will vary based on contamination levels
** Figures will vary based on machine specifications

SORTEX Customer Care.
Secure tomorrow's profits today.

Solutions and support to ensure that your optical sorter performs to maximum efficiency, delivering maximum productivity and making a maximum return on investment.

Bühler's worldwide Customer Care organisation delivers the highest quality local support by offering a variety of services under SORTEX Total Care*.
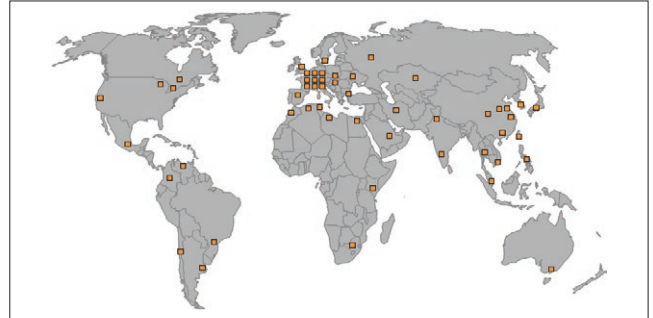
SORTEX Total Care

SORTEX Total Care offer customers the opportunity to create their own service package, composed of individual service features that best suits their needs.

Customers have the flexibility to create their most suitable plan - to cover those areas of primary concern, or select a fully-comprehensive cover.

Comprehensive cover is suitable for customers who require continuous operation of the optical sorter where the processing line is of the utmost importance. This way, customers can ensure that their investment is fully protected.

Customers can tailor their individual package from the following options.

WearCare - Preventative Maintenance
A fixed number of visits per year. During the visit an engineer will carry out checks, adjustments and when necessary replace consumable or wear parts.

RepairCare - Emergency Repair
In the unlikely event of the machine failing, an engineer will visit and repair the optical sorter.

EjectorCare - Ejector Service and Repair
When the ejectors reach their refurbish point, an engineer will visit to replace the ejectors with the appropriate number of units for the whole machine.

AnywareCare - Anyware Health Check and Alerts
The Anyware system allows the performance of optical sorters to be monitored remotely.

This diagnostic system facilitates a quicker response to any issues that might emerge. It automatically emails an alert message to the server, if an optical sorter develops a fault, or begins to operate outside normal working parameters.

An authorised engineer reviews the information in the alert, and advises whether adjustment is needed, or if the problem needs further attention.

SORTEX Spares Kits
For customers who require spare parts available on site, Bühler's technologists have created appropriate spares kits for the different machinery available.

SORTEX Upgrade Kits
Suitable for customers who are seeking to upgrade sorters with an additional module, features or software.

* All contracts are available for different durations

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