Agricultural Seeds
Sorting Solutions.

Innovations for a better world.
Agricultural Seed Sorting from Bühler. Equipment and Solutions.

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Bühler in partnership with processors. 
**An integral part of the agricultural seeds industry.**

Bühler is a leading global supplier of optical sorting solutions to the food and non-food processing industries and has been at the forefront of optical sorting technology for over 70 years.

This success stems from our continuous research, substantial investment in product development and our working partnerships with seed processors. Equipped with the latest in sorting technologies including detection, ejection and processing software, our optical sorting range are able to meet the highest capacities, yield and customer requirement - removing even the most challenging seed defects and foreign materials.

**Why choose Bühler?**

- Improves the homogeneous appearance of seeds for better germination levels and consistent growth rates
- Improves yield and product value
- Consistent sorting performance and machine stability
- Increases productivity and lowers operational costs
Typical seed sorting examples.
Your most challenging sort, conquered.

Sunflower
Different varieties of sunflower seeds such as black, striped or white have varying defects and processing requirements. Using a combination of Bühler proprietary technologies including Enhanced InGaAs and PROfile™, the sorting sample shown above successfully removed sclerotia, flower heads, xanthium seeds and sticks.

Corn (Maize)
Our range of optical sorters can sort a wide range of corn varieties including both white and yellow field corn, popcorn and sweetcorn. In the sorting sample shown above, the application successfully removed diseased corns, insect damage and broken corns for maximum germination. The application can also remove foreign seeds to eliminate cross contamination.

Soya
Raw soya seeds from the field have high levels of cross contamination. In the sorting example shown above, corn, other bean varieties, foreign materials and oblong shaped soya seeds were successfully removed to deliver a consistent homogeneous appearance. For maximum germination, the sorting application also removed immature, brown and black soya seeds.
Carrot Seeds

SORTEX® optical sorters can also sort smaller seed range such as vegetable seeds, with minimal yield loss. In this trial on carrot seeds, defects removed included panicum, knotweed, morels and foreign materials such as sticks to deliver a homogeneous appearance for maximum germination.
Seed sorting solutions. **Flexibility at all stages of the process line.**

1. **Untreated Seeds**
   Before Mechanical Grading
   
   SORTEX® optical sorters can be used on certain seed applications before or instead of mechanical graders to remove foreign materials and seed defects, minimising the loss of good seeds – common during the mechanical grading process.

2. **Untreated Seeds**
   After Mechanical Grading
   
   SORTEX® optical sorting can also be used after mechanical grading to remove defects which have been missed in the process, achieving a consistent, homogeneous appearance for better germination.
Subject to treatment type and seed condition, SORTEX® optical sorting can also be used after the coating process to remove non or partially coated seeds for better germination.

SORTEX® optical sorting can also sort smaller capacities as low as 100 kg per hour and only requires a short time for mode change and clean down between seed types.
Sophisticated sorters for challenging applications. 

SORTEX A Range.

Available in two technology variants; MultiVision™ and ColorVision™ InGaAs to help processors meet specific application requirements. Designed specifically for seed processors with challenging applications and who require accuracy to deliver the best in seed quality.

Most advanced sorting solution for challenging seed application - maximising overall profitability.

Features the latest in advanced detection technologies, including high resolution cameras, LED lighting, high powered ejectors and detection software for accurate removal of subtle colour defects and foreign materials. Delivering uniformed appearance on colour, size and shape - maximising yield, germination and overall profitability. InGaAs technology can also be added for even more challenging defects, delivering superior, premium quality of seeds with concentrated rejects.

- Consistent high sorting performance
- Balanced, stable performance
- Optimising productivity, lowering cost of ownership
Agricultural Seeds
Optical Sorting.
Optimised for mainstream sorting.

SORTEX B.

Ideal for seed processors looking for a typical, mainstream sorting solution with proven technologies and trusted performance. Available in three frame sizes in up to five modules and technology variants including the SORTEX B and the MultiVision™ technology.

Mainstream sorting solution with Bühler proprietary technologies for trusted performance

Features a combination of new and improved camera, lighting, ejection and detection systems to deliver a reliable sorting performance for mainstream seed sorting applications. Removes colour defects and foreign materials for uniformed seed quality. For harder to detect defects, including sorting broken and under or over size shaped seeds, the MultiVision™ technology variant, which includes SORTEX PROsize™, is available.

- Enhance day-to-day sorting performance and high capacity processing
- Consistent and stability
- Simplified ease-of-use
Agricultural Seeds

Optical Sorting.
SORTEX® Innovative Technologies. Mastering the most complex sort.

From Competence Centres around the world and optical sorting headquarter in London, our researchers, engineers and product developers work in partnership with our customers to develop proprietary technologies that are at the forefront of the optical sorting industry - since 1947.

Inspection system with Broadband LED Lighting
A combination of high-resolution customised cameras, designed and built in-house and Broadband LED Lighting, delivers the colour recognition needed to detect defects and foreign material, within the entire visible spectrum.

SORTEX ProSortX™ operating system
Fresh new interface that is modern, intuitive to use and responsive - simplified operating system with flexibility and better controls, no need for complex operator training.

SORTEX® ejector technology with SmartEject™
Ejectors are precision built for high speed ejection and consistent performance. Its easy serviceability and long lifespan lowers cost of ownership of SORTEX optical sorters. SmartEject sorting algorithms and software fires precisely at the whole defect, efficiently removing unwanted product while minimising false rejects.
Agricultural Seeds
Optical Sorting.

Balanced and Stable sorting performance
Maximise yield, capacity and reduce energy wastage during a secondary or tertiary sort. By optimising modules/chutes for a balanced and stable sorting performance, this helps to avoid unnecessary re-circulation of seeds.

Achieved through a combination of proprietary software including Auto-Calibration and Product Tracking - ensures consistent performance throughout whilst removing the need for laborious manual set-up.

PROfile™ (detection) technology
A combination of three dynamic technologies to perform the most complex sorting tasks.

PROshape™
Remove defects that are the same colour as good products; leaves, sticks, stones etc.

PROsize™
Separates under, over sized and brokens.

PROcolor™
Analyses multiple colour variation as well as individual blemishes offering flexibility to set own product quality.

InGaAs Technology***
Originally designed for military satellite application, InGaAs technology can detect defects which cannot be seen in the visible spectrum. By utilising infrared technology, the system reads light reflection as well as colour registration to offer precise detection of unwanted materials, for example foreign materials which are of the same colour as your pulse product.

* SORTEX A MultiVision™
** SORTEX B MultiVision™
*** SORTEX A ColorVision™ InGaAs
# Model Variants and Specifications

## Product options

Contact your local representative for a full list of product features and specifications.

<table>
<thead>
<tr>
<th>SORTEX A Range</th>
<th>ColorVision™ InGaAs</th>
<th>MultiVision™</th>
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<tr>
<td>Flexible Colour Cameras</td>
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<tr>
<td>Fixed Colour Cameras</td>
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<tr>
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### Dimensions, air and power requirements

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<th>Depth (Doors Open) mm</th>
<th>Depth (Doors Shut) mm</th>
<th>Height mm</th>
<th>Weight* kg</th>
<th>Typical air requirements (l/s)*</th>
<th>Typical Power consumption (kW)**</th>
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<td>2088</td>
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<td>2088</td>
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* Unpacked weight. Figures will vary based on machine product options.

* Figures will vary based on contamination levels.

** Figures will vary based on machine product options.
Bühler customers have access to a network of over 140 Sales and Service offices worldwide offering customisable service packages, stock on spares and upgrade kits, to ensure your optical sorters perform at maximum possible efficiency. Training courses and Competence Centres offering application and product trials are also available at regional sites and local offices around the world.

**TotalCare™**
Create a customised service package, composed of individual service features from the list below. From maintenance visits, downtime cover to refurbishments and preventative - basic to fully comprehensive. Designed to ensure your optical sorters perform at its maximum performance.

**TotalCare Protect**
Minimise Downtime
Based on an agreed number of annual visits, Bühler engineers will replace key wear parts, provide consultation and advise on future maintenance requirements.

**TotalCare Perform**
Performance Optimisation
Aspiring to keep downtime to under 24 hours, sorters will be safeguarded against any failed components. Bühler engineers will ensure first-rate performance once the repair is carried out.

**TotalCare PerformPLUS**
Ejector Refurbishment
Making certain that sorters are running at peak performance, ejectors are replaced when the stipulated life-cycle is reached. Performance is maintained for the future.

**TotalCare Anyware**
Supervised Functionality
Provides a working record of operational information as well as reports that enable machine health to be monitored and preventative maintenance scheduled.

**TotalCare AnywarePRO**
Remote Access and Assistance
Sorter performance can be viewed remotely by customers and Bühler engineers. Faults can be diagnosed and performance optimised in any location using a laptop, tablet or smart phone.

All contract options are available for variable durations.

**SORTEX® Spare Parts Promise**
Customer satisfaction is our priority. This is why we strive to deliver both spare and wear parts within 48 hours - maximising your profitability.

**SORTEX® Spare Parts**
Various kits to suit different optical sorters are available for customers who wish to have spare parts available on site.

**SORTEX® Upgrade Kits**
Bühler have designed various upgrade kits, for existing customers who are seeking to upgrade sorters with an additional module, new technology features or processing software.

**Optical Sorting Training Courses**
Available from various regional Bühler locations. From operator to management, basic to advance, speak to your local representative for course selection and availability.