



BUHLER

SORTEX® A Optical Sorter for Grain





Bühler in partnership with processors. **An integrated partner of the grain industry.**

Grain sorting solutions – The SORTEX range of optical sorters is suitable for small, medium or large-scale processing and is able to cater for a wide variety of grain applications. The applications showcased here are just a small selection of optical sorting solutions the SORTEX range can offer.

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 70 years.

Bühler offers complete solutions for processors who demand the highest standard of product quality. The SORTEX range is specifically engineered for grain sorting and delivers improved food safety.

The commitment to substantial investment in Research and Development ensures that this advanced optical sorting technology produces outstanding results in removing even the most challenging of defects and foreign material.

SORTEX A.

Trusted high performance and consistent sorting.

The SORTEX A optical sorter offers processors a consistent and balanced high performance sorting solution. Featuring a combination of trusted Bühler proprietary technologies, working together to bring you better yields and quality product to match any market requirements.



One module



Two/Three module



Four/Five module

Equipped with Bühler custom-built inspection and lighting systems, the SORTEX A removes a range of defects including discoloured grains, black tips, broken or split grains, foreign materials and detection and removal of dangerous mycotoxin, supporting the production GMO-free products (e.g. separate soy and corn/maize from wheat) as well as gluten free products (e.g. separate barley and wheat from oats)

Features Bühler proprietary technologies including Product Tracking, Auto-Calibration, High-Lumen or Broadband LED Lighting and the new SORTEX ProSortX™ operating system, the SORTEX A offers ease of use, removing the need for manual intervention whilst delivering consistent high sorting performance.

Benefits

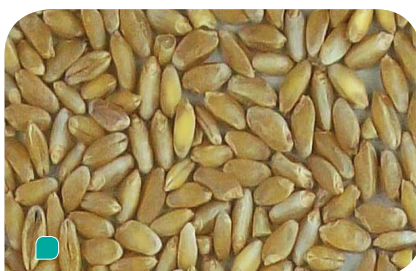
- Subtle colour detection
- Delivering the highest quality sort
- Maximising yield

Precision and Power

An integral partner in grain sorting.

Damaged, diseased and discoloured grains can all affect food safety and product value. SORTEX technology significantly reduces these issues to maximize yield, increase profitability and ensure consistent product safety.

■ Accept ■ Reject



Wheat

The SORTEX A range can remove diseased grains such as Vomitoxin (DON), Fusarium and Ergot, discoloured, damaged or bug infested grains and can reduce cross contamination from Barley, Oats, Soya and a range of other grains and foreign materials.

Durum

The SORTEX A range can remove small spot and tip defects, diseased grains and has a dedicated Fusarium removal setup.

For Protein Durum wheat sorting, low protein grains can be removed.

Barley

Highly efficient in removing mycotoxin contaminated kernels, minimizing the risk of gushing in beer.

Optimised optical system allows removal of cracked kernels as well as cross contamination by wheat, rye and oats.

Suitable for all grain varieties.



Soft/hard wheat



Durum wheat



Corn/maize



Rye



Oats



Barley



Rye

Delivers the highest level of food safety with consistent removal of Ergot and damaged grains.

Foreign grains such as barley, wheat and wild oats can also, all be removed with high efficiency.



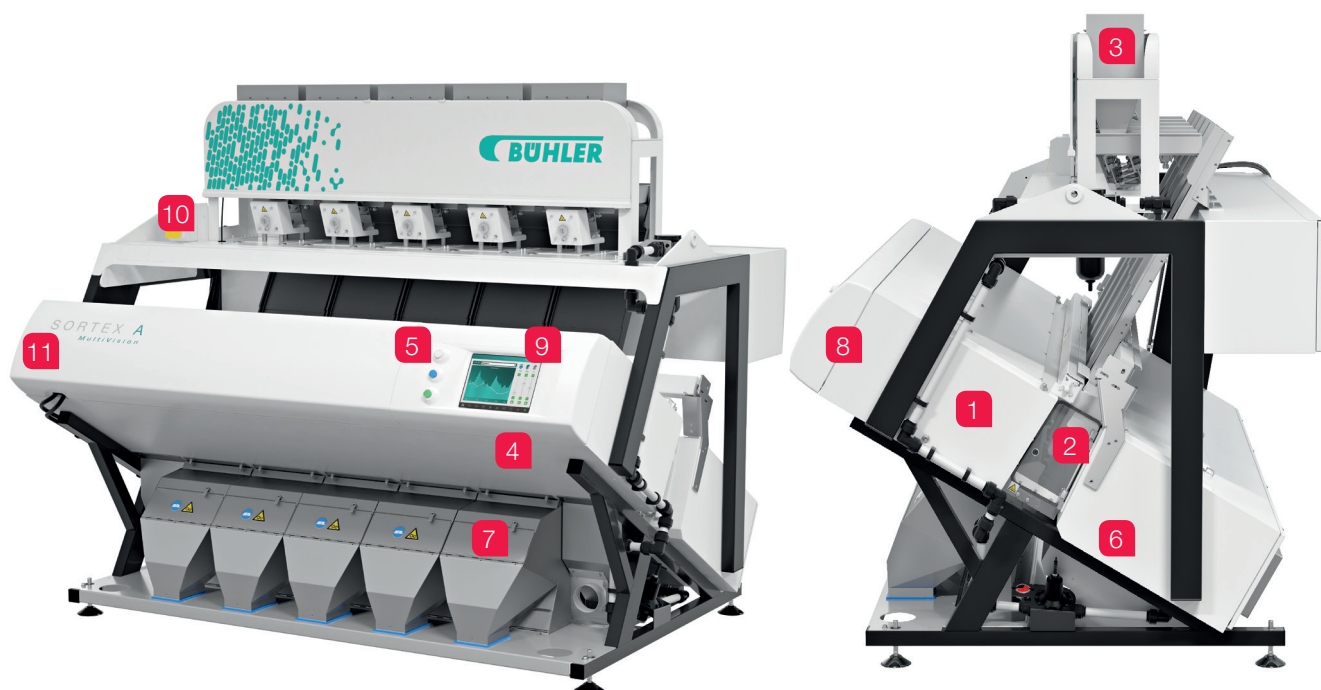
Millet/Sorghum



Buckwheat



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 High Performance 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 with load cell controlled feed regulation system. Each module is capable of processing up to 8 tonnes per hour (wheat).

4 SmartEject™ technology

Fires precisely at the whole object to ensure efficient removal

5 SORTEX ProSortX™ operating software

Simplifies a wealth of configurable options with unmatched processing speed

6 Automated Background Lighting

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/Hazloc Compliant

Certified for use in hazardous environments

SORTEX A Sizes and features.

Technical details.

Product options

SORTEX A	SORTEX A (BSAA)	SORTEX A DualVision™ (BSAB)	SORTEX A ColourVision™ InGaAs (BSAC)	SORTEX A MultiVision™ (BSAD)
Dark or light camera	■			
Dark and light camera		■		
Flexible Colour Cameras			■	■
InGaAs Technology	●	●	■	●
Enhanced InGaAs			●	●
PROfile™ Technology			■	■
LED Lighting	■	■	■	■
IR Lighting	●	●	■	●
Climate Control	●	●	●	●
Smart-Eject™			■	■
Remote Access	●	●	●	●
SORTEX ProSortX™	■	■	■	■
SORTEX TotalCare	●	●	●	●
CE Certification	■	■	■	■
No of Modules	1-5	1-5	1-5	1-5

■ Standard
 ● Optional

For the full feature list and product specifications contact your local representative.

Dimensions

Machine	Width mm	Depth (Doors Open) mm	Depth (Doors Shut) mm	Height mm	Weight* kg
A1	1000	2340	1708	2088	500
A2	1788	2340	1708	2088	927
A3	1788	2340	1708	2088	970
A4	2387	2340	1708	2088	1107
A5	2387	2340	1708	2088	1150

* Unpacked weight. Figures will vary based on machine specifications

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	1.4
A2	16	2.1
A3	24	2.4
A4	32	3.2
A5	40	3.5

* Figures will vary based on contamination levels

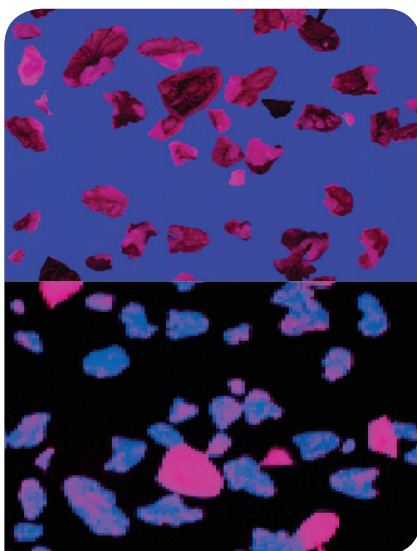
** Figures will vary based on machine specifications

Innovative technologies.

Technology leadership in grain sorting.



Flexible broadband LED lighting



Visible camera frame capture
InGaAs camera frame capture



Flexible, high capacity module
configuration

Inspection system with variable LED lighting

Bühler's high resolution cameras are designed and built in-house with high resolution optic sensors that deliver the colour registration needed to detect defects and foreign material. When combined with high lumen or broadband LED lighting, the sorters can target defects within the entire visible spectrum.

InGaAs technology

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.

Balanced feed regulation

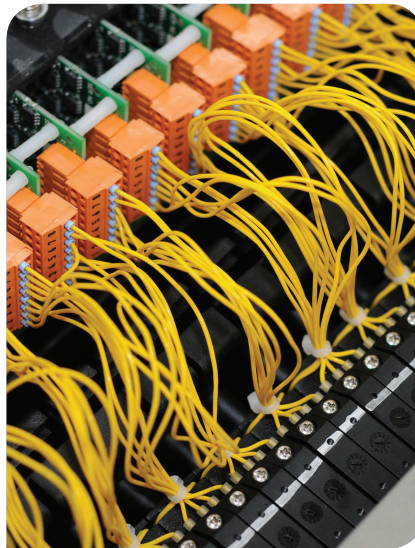
A consistent product feed is very important for grain processing. Bühler's integrated, field proven feed regulation system ensures accurate and reliable flow into and out of the SORTEX optical sorter.



SORTEX ProSortX™ operating software

SORTEX ProSortX™ operating software

The latest update of Bühler's proprietary operating software comes with a fresh new interface that's modern, clean and intuitive to use. Featuring innovative navigation control, impeccable user functionality and simple, easy set-up.



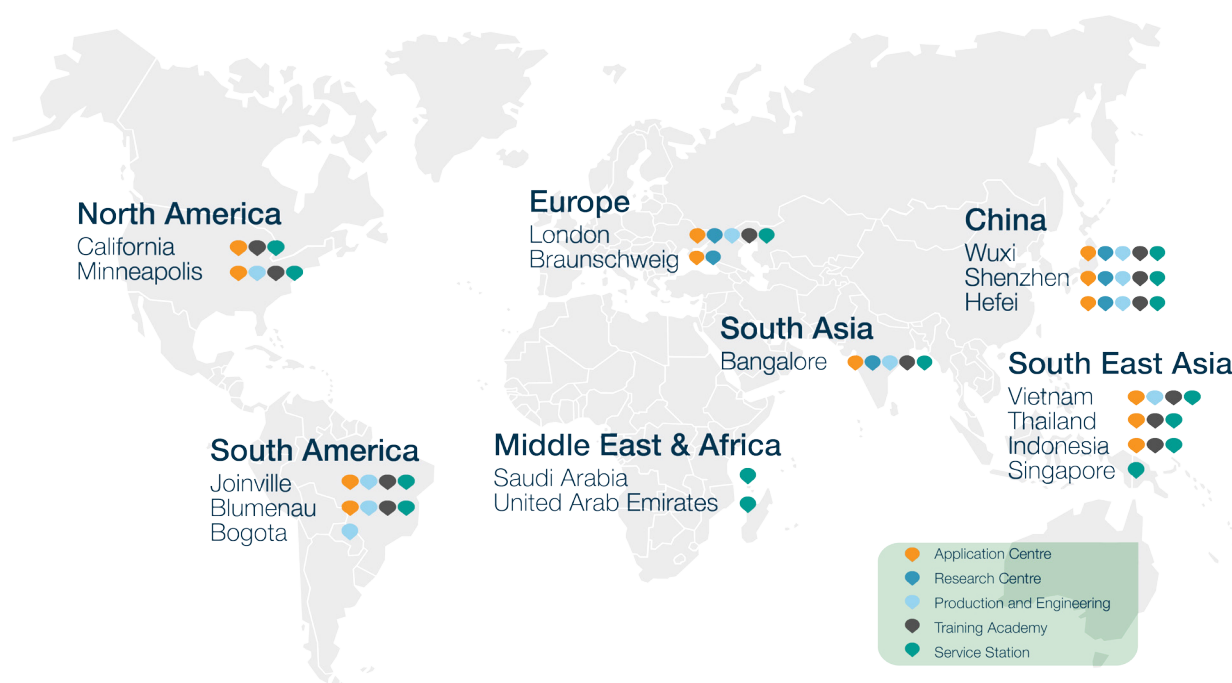
Serviceable high speed ejectors

High speed ejectors

Bühler ejectors are custom-designed and precision built for high speed, easy serviceability and long life. Through constant development, the ejector life span has increased significantly. The efficiency and easy maintenance of this operation enables SORTEX sorters to have low cost of ownership.

SORTEX Customer Care. Secure tomorrow's profits today.

Bühler's worldwide Customer Care organisation delivers the highest quality local support ensuring optical sorters perform at maximum possible efficiency, deliver optimum productivity and make the best return on investment.



The SORTEX Spare Parts promise.

Customer satisfaction is our priority. This is why we strive to deliver spare and wear parts within 48 hours, doing our best to limit your downtime and maximise your profitability.

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

SORTEX TotalCare™

Performance protection.



SORTEX TotalCare™ allows customers to create their own service package, composed of individual service features that best suit their needs. Customers can create a tailored programme from a variety of packages. Contract options vary from basic to fully comprehensive cover. This way, investments can remain fully protected.

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.

Protecting Investment.

TotalCare Perform

Performance Optimisation

Aspiring to keep downtime to under 48 hours, sorters will be safeguarded against any failed components. Bühler engineers will ensure first-rate performance once the repair is carried out.

Repair and Optimise.

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.

Maximum Capacity and Quality.

Customers can tailor their individual package from the following options

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.

Maintain Optimised Performance.

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 smartphone.

Ultimate control.

* All contracts are available for variable durations

SORTEX upgrade kits.

Suitable for those who are seeking to upgrade sorters with an additional module, new features or software updates.

New technologies and innovations are continuously in development. Upgrade kits allow customers with existing machinery to enhance their production line with the very latest proprietary optical sorting technology.

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