Grain Optical Sorting.
An integral partner of the grain 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 65 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.

With a commitment to substantial investment in research and development, Bühler has developed state-of-the-art technology that empowers small, medium or large-scale processors to meet stringent food safety and quality requirements as well as maximising their productivity and profitability.

SORTEX advanced optical sorting technology is able to cater for a wide variety of grain applications and has been purposely designed to optimise grain sorting. Along with a market leading and long standing reputation and excellent after sales service packages, Bühler will prove to be a great partner.

**Why Bühler?**
- Improves food safety delivering the highest quality grain
- Maximises yield
- Delivers high capacity solutions
- Consistent performance, lower operational costs

### Optical sorting solutions for:

#### Soft/hard wheat

Delivers high performance, consistently, on a large variety of wheat at different processing stages.

The latest SORTEX technology can remove subtle defects, discolouration and mycotoxins such as DON.

#### Durum wheat

The SORTEX range is highly efficient, whether sorting whole grain, broken or semolina.

Removing even the subtlest spots, the range delivers processors exceptional product quality and appearance.

#### Corn/maize

From field corn to grits, the SORTEX range can offer precision sorting on even the most challenging defects.

Black tips, broken or split grains, foreign materials and dangerous aflatoxins can all be removed.

#### Rye

The SORTEX range can remove disease infected rye, ergot, discoloured grains and foreign materials.

Small scale or large scale processors can achieve consistent, high quality yield.
Oats
For all different varieties of oats, whether rolled, hulled, kilned, malted or flaked, the precision sorting of the SORTEX range produces safe, clean products whilst maximising yield.

The SORTEX range can remove cross-contamination, foreign materials, discolouration and subtle spot defects.

Barley
For all types of barley processing, the SORTEX range is highly effective in identifying and removing moulds and mycotoxins, including vomitoxin (DON) and Fusarium.

The SORTEX range also targets foreign grains and seeds, brokens, shrunked, shrivelled or naked grains.

Millet/sorghum
The SORTEX range is ideal for processors who sort a wide range of millet; hull or groat.

Precise identification and ejection accuracy allows the removal of damaged, discoloured or diseased grains, foreign seeds or materials whilst preserving a high yield.

Buckwheat
For hulled or un-hulled buckwheat the SORTEX range of optical sorters can effectively detect and remove defects such as discoloured kernels or foreign seeds.

Even defects like sticks and stones of similar colour to the buckwheat can be removed with high efficiency.
Increase profitability through innovation.

Improving food safety delivering the highest quality grain
- Bühler’s optical sorting solution improves food safety by removing diseased grains contaminated with toxins such as mycotoxins (e.g. vomitoxin (DON) or alkaloids e.g. ergot)
- Excellent results in removing foreign seeds and grains from product (e.g. vetch, weed seed and others)
- SORTEX optical sorters help achieve excellent intermediate product appearance for products such as whole grain, grits and flakes

Maximising yield
- The high precision ejection system minimises false reject of good grain, delivering a highly concentrated reject stream
- Due to minimal loss of good grains on the first pass, most grain applications do not require a re-sort while still running on a high capacity, however, a re-sort option is available if required

Delivering high capacity solutions
- SORTEX range of optical sorters can be individually configured to cater for capacities of between 500kg and up to 40 tonnes per hour (e.g. on wheat)
- Production volume is maintained, with minimum downtime for cleaning or product configuration change

Consistent performance, lower operation costs
- SORTEX optical sorters deliver stable and reliable operation with product-tracking, auto-calibration and wiping of the viewing area, meaning machines are self-optimising and perform consistently in the long-term
- SORTEX ProSortX™ operating software allows for quick and easy sorter adjustments reducing operator intervention
- SORTEX optical sorters allow direct input from the load cells in the customer’s hopper. This allows the capacity of the sorter to be matched to the plant’s throughput
Technology leadership in grain sorting.

Wheat
The SORTEX 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 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 naked and cracked kernels as well as cross contamination by wheat, rye and oats.

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.
SORTEX A.
Pioneering optical sorters for grain sorting.

Available in four variants including the MultiVision™ and ColorVision™ inspection systems, the SORTEX A demonstrates a commitment to providing grain processors with reliable and consistent long-term performance.

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

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.

**Empowering sorting performance**

The SORTEX A range inspection technologies provide the most profitable sorting performance in removing subtle colour variations and foreign material, reducing toxins including mycotoxin, and colour grading/grouping.

The SmartEject™ system and simultaneous resorting capabilities ensure accurate product rejection and the highest reject concentration, thereby minimising loss of good product.

**Ensuring consistent reliable operation**

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.

Optimising productivity, lowering cost of ownership.

The SORTEX A range optimises productivity with durable broadband LED lighting and long-life serviceable ejectors.

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.

**Multiple sorting capabilities**

Customised configurations with SORTEX ProSortX™ operating software.
SORTEX B.
Optimising conventional sorting.

Available in three variants including the DualVision™ and ColorVision™ inspections systems, the SORTEX B range is available in three frame sizes to suit all capacity requirements for mainstream sorting.

Integrating superior feed and vision systems with processing capabilities, the SORTEX B range is the dependable choice for grain processors who seek the assurance, functionality and trusted performance of the SORTEX brand.
Consistent performance in typical applications.

Process engineered with flexibility to handle small to large capacities, the SORTEX B range is available in one to five module versions, in three different frame sizes. Different features can be offered for different modules.

Enhanced sorting performance
Using up to three wavelengths, colour cameras together with standard InGaAs technology, the SORTEX B range provides excellent colour sorting and foreign material detection, delivering high end product quality, consistently.

Flexible broadband LED and Broad Spectrum IR lighting can identify defects within selected wavelengths of the visible and infra-red spectrum.

Trusted Bühler quality and reliability
The SORTEX B range has been designed to Bühler’s stringent quality standards. Dependable, reliable performance is assured while the cutting edge design ensures durable machine quality with sealed control and optical cabinets that provide easy access for maintenance.

Greater configuration flexibility and capacity
Modular systems provide flexibility in the sorting configuration to produce the required product grades.

In conjunction with up to five high capacity modules customised to individual sorting requirements, the SORTEX B can match varied capacity needs and manage various contamination levels.

Proprietary operating software
Targets individual defects with unmatched processing speed.
Innovative technologies and customer care.

**Flexible broadband 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 LED lighting, the sorters can target defects within the entire visible spectrum.

**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.

**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 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 FingerTipControl™ and all-new Bühler ATOM™ board for faster processing and navigation between screens.

**SORTEX Customer Care.**

SORTEX Total Care offers customers the opportunity to create their own service package, composed of individual service features, to best suit their needs. Customers can tailor their individual package from the following options:

- WearCare – Preventative Maintenance
- RepairCare – Emergency Repair
- EjectorCare – Ejector Service and Repair
- AnywareCare – Anyware Health Check and Alerts

**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**

Customers seeking the latest technology available on their optical sorter – whether software or extra functionality – benefit from a range of upgrade kits available.
Bühler inspection systems and options.

Inspection Systems

MultiVision™
- Good Product
- Visible Defect 1
- Visible Defect 2
Detects the slightest colour variation by using multiple visible wavelengths.

ColorVision™
- Good Product
- Visible Defect 1
- Visible Defect 2
- Visible Defect 3
- Visible Defect 4
- Visible Defect 5
Detects light, dark and other colour variations simultaneously by using up to two visible wavelengths.

DualVision™
- Good Product
- Visible Defect 1
- Visible Defect 2
- Visible Defect 3
Detects both light and dark defects simultaneously by using two visible wavelengths independently.

Standard
- Good Product
- Visible Defect 1
- Visible Defect 2
Detects either light or dark defects using one visible wavelength.

*Available for SORTEX A range only

Product options

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