Innovations for a better world.

Rice

Sorting Solutions.
Leading in Optimised Rice Processing. 
Optical sorting solutions.

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Bühler, the world’s leading provider of rice processing equipment.

An integrated partner of the rice industry.

For 70 years, Bühler has taken the lead to deliver innovative optical sorting solutions in rice. Built into all SORTEX® rice sorters is the ethos of superior machine performance, revolutionary technologies and balanced stable sorting. This is the Bühler competitive edge and the reason why Bühler is the leading brand of choice for so many rice processors.

Offering innovative technologies including Intelligent Automation, Crosshair Targeting™, SORTEX ProSort™ operating software, high definition cameras and remote monitoring capabilities such as AnywarePro™, Bühler has the right solution for you, no matter the capacity, requirement or budget.

Bühler’s wide range of optical sorting solutions offer rice processors flexibility of choice, without compromising on quality. SORTEX® range of optical sorters is suitable for small, medium or large-scale processing and for a wide variety of rice applications including raw, parboiled and steamed.

Why choose Bühler?

- Delivers premium quality and consistent appearance on all varieties of rice
- Maximised yields
- Increases productivity and lowers operational costs
- Multiple, configurable machine options
- Balanced and stable sorting
Bühler rice sorting solutions
Flexibility to suit all varieties of rice.

Raw rice sorting
SORTEX® optical sorters excel in sorting all varieties of raw rice – detecting and removing typical and challenging defects such as discoloured, chalky, white belly, bran streaks and foreign material.

Parboiled rice sorting
For parboiled applications, SORTEX® optical sorters successfully remove typical defects, such as bran streaks, discoloured and foreign materials. SORTEX optical sorters also enable processors to achieve the highest standard of rice quality by removing the most subtle defect types with precision.

Steamed rice sorting
In steamed rice applications, SORTEX® optical sorters easily detect and remove a wide range of typical and challenging defects such as tip damage, discoloured, damaged grains and foreign material.

Sample defects removed through SORTEX® optical sorting

- Subtle to dark purple and grey
- Pale to dark yellow
- Degrees of red and bran streaks
- Degrees of peck and black tips
- Immature and rotten grains
- Subtle spots of white belly and chalky
Full integration and extensive product range

SORTEX® optical sorters can be fully integrated into a rice mill enabling a fully automated line.

A full range of equipment for any stage during processing is also available: cleaning, hulling, whitening, polishing, grading and packing, including aspiration and conveying.
Precision sorting.

Damaged, diseased and discoloured products affect end product quality and impact profitability; foreign materials such as glass, sticks or stones affect product safety and value. SORTEX optical sorting technology significantly reduces these issues to maximise yield and profitability of good product.

White rice

Sample tests on white rice showed the removal of challenging subtle defects such as subtle greys, yellows, streaks and immature grains along with the more obvious defects and foreign materials such as stones.

Brown rice

Sample test on brown rice removed a wide variety of defects such as discolouration (lighter or darker coloured grains), immature and grains with varying degree of defects. Foreign materials such as unwanted variety of grains, husk, sticks and stones were also removed – results showed a highly concentrated reject.

Parboiled rice

Parboiled rice samples were verified to meet export quality as well as the highest food safety standards. Sample tests successfully removed grain defects; subtle and obvious bran streaks, pecks, discolouration, brokens and foreign materials; foreign grains and seeds, stones, plastics and glass.

Suitable for all rice varieties.
Foreign Material

Sample tests on a comprehensive variety of rice successfully removed foreign materials such as stones, different coloured glass: clear and coloured, sticks and plastics.
SORTEX S UltraVision™.
A giant leap forward in intelligent optical sorting for rice.

SORTEX S UltraVision™, the most technologically advanced optical sorter available for rice. Bühler understands that your reputation relies on the product you create and being able to consistently meet your customer’s expectations to build trust and long term partnerships. With this in mind and after extensive research, Bühler has developed the most technologically advanced, intelligent optical sorter available for rice today.

- Ultimate sorting performance with highest ever capacity
- Outstanding productivity
- Superior ease of use and serviceability

Designed and built in the UK, SORTEX S UltraVision is a revolution in rice sorting, delivering the highest capacity and export quality standards with ease, pinpoint accuracy and simplicity, with control over each individual defect.

Featuring Bühler’s SORTEX ProSort™ operating software and advanced proprietary inspection system, the SORTEX S UltraVision demonstrates a total commitment to providing the ultimate sorting solution to rice processors who refuse to compromise.
SORTEX S UltraVision™ at a glance.

1. **Highest ever Bühler capacity**
   Available with up to six chutes and a patented feed system to deliver an even higher capacity per chute.

2. **Intelligent individual defect detection**
   Control over every defect, allowing users to adjust the amount of each defect removed with the slide of a button.

3. **Textured LED Lighting™**
   Scientifically designed to improve illumination and enhance defect recognition in rice.

4. **Multi-Chromatic ‘Ultra’ cameras**
   A unique and proprietary designed camera specifically for rice. Provides the ultimate in the detection of all known defects and foreign material.

5. **Crosshair Targeting™ technology**
   Improves the accuracy of the ejection of rejects, even during very high capacity processing.

6. **SORTEX ProSort™ operating software**
   Power and control from one screen, beautifully displayed on a 15 inch touch-panel.

7. **Intelligent Modes**
   Pre-installed on the optical sorter to provide export quality sorting at the touch of a button.

8. **Intelligent Automation**
   The optical sorter consistently scans and automatically adjusts to the incoming product, removing the need for laborious manual setup.

9. **Remote access for real-time monitoring**
   Remote access enables Bühler engineers to support SORTEX S UltraVision, including sorting performance adjustment from anywhere in the world.

10. **Soft landing feature**
    Eliminates product breakages.

11. **Easy-reach-glass**
    Can be cleaned without the need to remove chutes or receptacles, helping to keep sorting performance consistently running at its peak.

12. **SORTEX AnywarePro™**
    New optional feature available only on the SORTEX S UltraVision - monitor real-time performance, fault alerts, track defect analysis and compare historical data from your computer, laptop, tablet or smartphone with support from Bühler engineers around the world.
SORTEX B.
Optimising conventional sorting for rice.

The SORTEX B demonstrates a commitment to rice processors for day-to-day rice sorting, offering a range that is consistent and stable in performance whilst assuring an end product quality that meets both food safety and quality standards.

The SORTEX B is suitable for rice processors who are seeking the functionality and trusted performance of the SORTEX® brand – consistent and reliable performance in everyday processing. It features a digital feed and a detection system that is designed and built in-house to detect colour and foreign materials. The range also offers smaller rice processors the flexibility to upgrade to meet capacity requirement as it is available from two to seven modules in three different frame sizes.

- Enhance day-to-day sorting performance and high capacity processing
- Consistency and stability
- Simplified ease-of-use
Balanced, stable sorting.
The Bühler competitive edge.

Built into all SORTEX optical sorting machines is the ethos of balanced and stable sorting. This is what provides Bühler customers with the competitive edge over other manufacturers’ machines. This guide explains how we achieve a balanced and stable sorting performance and the benefits it brings - increased revenue, reduced costs and consistent product quality.

Balanced and stable sorting is ideal for processors running a resort (secondary) and/or a third (tertiary) sort. Optimising the configurations of modules/chutes to perform in a balanced manner avoids unnecessary re-circulation of any accept or defect grains whilst maintaining a consistent percentage of even lower reject concentration during re-sorting.

Balanced and stable sorting is also achieved through a combination of software and technologies pre-equipped in Bühler optical sorters notably; Auto-Calibration system and Product Tracking/Intelligent Automation. This removes the need for laborious manual set-ups and delivers consistent sorting performance - all day, every day.

**Key Benefits**

- **Consistent accept quality**
  The percentage of accept quality remains consistent throughout the day. Additionally, there is no unsorted product left in the optical sorter once a batch process is completed.

- **Product circulation avoided**
  During a balanced stable sorting performance, a Bühler optical sorter intelligently sorts a grain into the reject or accept stream, with no re-circulation of undecided grains stuck in the process loop. This feature reduces the consumption of compressed air, energy use, wear of optical sorter and ensures the optical sorter maximises its capacity.

- **Greater product control**
  The reject and accept quality is the true representation of what a Bühler optical sorter can achieve during a batch process as no undecided grain is recirculated. This means that a processor can confidently adjust the accept quality/reject ratio to meet their requirements. This is supported by Product Tracking/Intelligent Automation, a technology unique to Bühler, that maintains the consistency of the performance.
Bühler innovative technologies.
Technology leadership in optical sorting.

Multi-Chromatic ‘Ultra’ Cameras
A completely new camera technology, unique to Bühler, following many years of research. Specifically designed to enhance defect detection in rice to accentuate the difference between grain colours in order to separate these into different classes of defects.

Textured LED Lighting™
A breakthrough design in lighting texture that helps the multi-chromatic ‘Ultra’ cameras to successfully differentiate different grains, while simultaneously enhancing the more difficult to detect defects. Textured LED Lighting™ has an exceptional life-span, low power consumption and its modular form allows for easier servicing.

Pinpoint accuracy with Crosshair Targeting™ technology
A new technology unique to Bühler. Accurately targets and ejects defects while reducing the loss of good grains in the reject stream – performs even at very high sorting capacities.
Intelligent individual defect detection

A combination of an all-new inspection system, comprising of Multi-Chromatic ‘Ultra’ cameras, Crosshair Targeting™ technology and Textured LED Lighting™ can detect the most subtle discoloration and defects including varying degrees of purples, greys, yellows, streaks, pecks, black tips, spots, chalky and immature or rotten grains.

Individual defect sensitivity controls allow processors to regulate the degree of items such as light yellows or microtips in final goods.

Intelligent Automation/ Product Tracking

Unique to Bühler and available on the SORTEX range. By constantly scanning and automatically adjusting to the incoming product characteristics, the SORTEX range of optical sorter will consistently maintain performance and remove the need for manual setup across each module and across the sorter.

High-Lumen LED Lighting

Improves illumination for enhanced defect detection of small spot defects, subtle colour and foreign materials.

LED components benefit from a long life span, designed and built in-house to provide our high-resolution optic sensors maximum illumination for even better colour detection on product defects and foreign materials.

Consistent sort performance across all rice varieties.
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.

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.

Customers can tailor their individual package from the following options:

**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 24 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.

**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.