Rice

Sorting Solutions.
Rice Sorting from Bühler.  
**Equipment and Solutions.**

1. Rice Sorting Solutions and Varieties  
2. Rice Sorting Applications  
3. SORTEX® S UltraVision™ Optical Sorter  
4. SORTEX® B Optical Sorter  
5. SORTEX® Innovative Technologies  
6. Model Variants and Specifications  
7. SORTEX® Customer Care
Leading in optimised rice sorting solutions. An integral partner of the rice industry.

Built into all Bühler 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 it is the leading brand of choice for so many rice processors.

Featuring the latest in detection system including cameras, lights and a combination of proprietary technologies, offering rice processors the most flexible range of sorting solutions to meet requirements on different rice variety, capacity, yield and applications.

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
1 Rice Sorting Solutions.
Flexibility to sort all varieties of rice.

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.

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.

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.

Suitable for all rice varieties.
Full integration and extensive product range

SORTEX® optical sorters incorporate digital technologies capabilities to offer control and monitoring and 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, conveying and value-added processing.
**Rice Sorting Applications.**

**Your most challenging sort, conquered.**

From subtle to obvious defects

- **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 tests on brown rice removed a wide variety of defects such as discolouration (lighter or darker coloured grains), immature grains and grains with varying degree of defects. Foreign materials such as unwanted 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 rice defects; subtle and obvious bran streaks, pecks, discolouration, broken grains and foreign materials such as foreign grains and seeds, stones, plastics and glass.

- **Degrees of peck and black tips**
- **Immature and rotten grains**
- **Subtle spots of white belly and chalky**

Foreign Material

Sample tests on a variety of rice successfully removed foreign materials such as stones, clear and coloured glass, sticks and plastics.
Intelligent optical sorting experience.

SORTEX® S UltraVision™.

The most technologically advanced optical sorter available for rice. Combines cutting-edge detection systems, the latest in inspection, lighting and operating software, offering rice processors an intelligent optical sorting experience to meet any challenging application.

A giant leap forward in intelligent optical sorting for rice

The 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.

- Ultimate sorting performance with the highest ever capacity
- Outstanding productivity
- Superior ease of use and serviceability
The SORTEX B demonstrates a commitment to rice processors for day-to-day rice sorting, offering a solution that is consistent and stable in performance.

Mainstream sorting solution with Bühler proprietary technologies.

Features a combination of new and improved camera, lighting, ejection and detection systems, to deliver a reliable sorting performance for mainstream rice sorting applications. Removes colour defects and foreign materials for uniformed rice. The SORTEX B also offers smaller rice processors the flexibility to upgrade as it is available from one to seven modules in four different frame sizes.
SORTEX® Innovative Technologies. Technology leadership in optical sorting.

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

Advanced detection systems

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

High-resolution customised cameras**
A combination of high-resolution cameras, designed and customised in-house.

Textured LED Lighting™*
A breakthrough in lighting texture design 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.

Crosshair Targeting™* technology
Crosshair Targeting accurately targets and ejects a defect by firing at the centre of the grain, reducing loss of good grains to the reject stream. Consistent performance even at high sorting capacities, maximising yield and overall profitability.
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 discolouration 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 micro tips 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.

Modern and intuitive to use operating system

The SORTEX sorting range for rice comes installed with SORTEX ProSort™* and SORTEX ProSortX™** - a fresh new interface that is modern, intuitive to use and responsive - a simplified operating system with flexibility and better controls, no need for complex operator training.

* SORTEX S UltraVision™
** SORTEX B
## Model Variants and Specifications.

### Product options
Contact your local Bühler representative for a full list of product features and specifications.

<table>
<thead>
<tr>
<th>Features</th>
<th>SORTEX S UltraVision™</th>
<th>SORTEX B</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Ultra’ Cameras</td>
<td>Standard</td>
<td>Standard</td>
</tr>
<tr>
<td>Standard Cameras</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Textured LED</td>
<td>Standard</td>
<td>Standard</td>
</tr>
<tr>
<td>Standard InGaAs</td>
<td>Textured LED</td>
<td></td>
</tr>
<tr>
<td>IR Lighting</td>
<td>Standard InGaAs</td>
<td></td>
</tr>
<tr>
<td>Crosshair Targeting™</td>
<td>IR Lighting</td>
<td></td>
</tr>
<tr>
<td>SORTEX ProSort™</td>
<td>Crosshair Targeting™</td>
<td></td>
</tr>
<tr>
<td>SORTEX ProSortXTM</td>
<td>SORTEX ProSort™</td>
<td></td>
</tr>
<tr>
<td>Intelligent Modes</td>
<td>Intelligent Modes</td>
<td></td>
</tr>
<tr>
<td>Remote Access</td>
<td>Remote Access</td>
<td></td>
</tr>
<tr>
<td>Intelligent Automation/</td>
<td>Product Tracking</td>
<td></td>
</tr>
<tr>
<td>Product Tracking</td>
<td>Auto-Calibration</td>
<td></td>
</tr>
<tr>
<td>Auto-Calibration</td>
<td>CE Certification</td>
<td></td>
</tr>
</tbody>
</table>

### Dimensions, air and power requirements

#### SORTEX S UltraVision™

<table>
<thead>
<tr>
<th>Width mm</th>
<th>Depth mm</th>
<th>Height mm</th>
<th>Weight* kg</th>
<th>Typical air requirements (l/s)*</th>
<th>Typical Power consumption (kW)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>S3</td>
<td>2113</td>
<td>1372</td>
<td>2060</td>
<td>985</td>
<td>11.5</td>
</tr>
<tr>
<td>S4</td>
<td>2113</td>
<td>1372</td>
<td>2060</td>
<td>1025</td>
<td>14.4</td>
</tr>
<tr>
<td>S5</td>
<td>2769</td>
<td>1372</td>
<td>2060</td>
<td>1185</td>
<td>18.0</td>
</tr>
<tr>
<td>S6</td>
<td>2769</td>
<td>1372</td>
<td>2060</td>
<td>1225</td>
<td>21.6</td>
</tr>
</tbody>
</table>

#### SORTEX B

<table>
<thead>
<tr>
<th>Width mm</th>
<th>Depth mm</th>
<th>Height mm</th>
<th>Weight* kg</th>
<th>Typical air requirements (l/s)*</th>
<th>Typical Power consumption (kW)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>1000</td>
<td>1625</td>
<td>2088</td>
<td>500</td>
<td>8</td>
</tr>
<tr>
<td>B2</td>
<td>1787</td>
<td>1625</td>
<td>2088</td>
<td>927</td>
<td>16</td>
</tr>
<tr>
<td>B3</td>
<td>1787</td>
<td>1625</td>
<td>2088</td>
<td>970</td>
<td>24</td>
</tr>
<tr>
<td>B4</td>
<td>2387</td>
<td>1625</td>
<td>2088</td>
<td>1107</td>
<td>32</td>
</tr>
<tr>
<td>B5</td>
<td>2387</td>
<td>1625</td>
<td>2088</td>
<td>1150</td>
<td>40</td>
</tr>
<tr>
<td>B6</td>
<td>3047</td>
<td>1625</td>
<td>2088</td>
<td>1303</td>
<td>48</td>
</tr>
<tr>
<td>B7</td>
<td>3047</td>
<td>1625</td>
<td>2088</td>
<td>1350</td>
<td>56</td>
</tr>
</tbody>
</table>

* 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.
SORTEX® Customer Care.

Secure tomorrow’s profits today.

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.