A giant leap forward in intelligent optical sorting for rice.





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#### Introducing the all-new SORTEX S UltraVision™. The next generation of advanced optical sorters 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 conducting extensive research, Bühler has invested heavily in developing the most technologically advanced, intelligent optical sorter available for rice today.



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 and pinpoint accuracy.

Never before has so much precision, flexibility and simplicity been available, with such control over each individual defect.

Featuring Bühler's brand-new SORTEX ProSort™ 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 highest ever capacity
- Outstanding productivity
- · Superior ease of use and serviceability

## SORTEX S UltraVision $^{TM}$ 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.

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

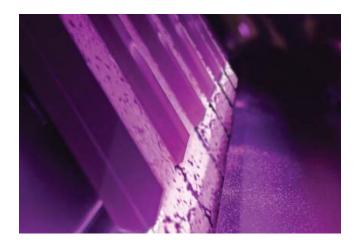
Can be cleaned without the need to remove chutes or receptacles, helping to keep sorting performance consistently running at its peak.

12 Maximum hygiene

Open construction and new design to make cleaning and hygiene simple.

## Presenting the ultimate in sorting performance.

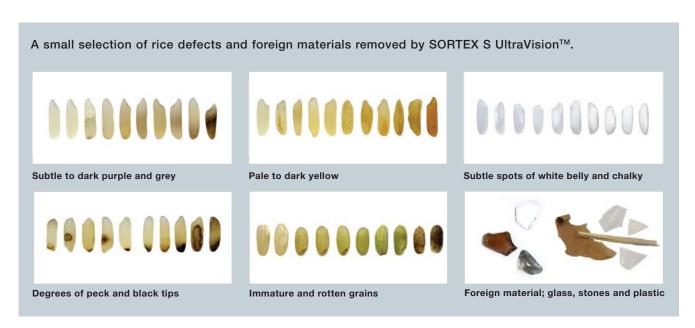
Discoloured grains, defects, plastics, glass, stones, paddy and foreign seeds can all dent profits. SORTEX S UltraVision can detect and remove these better than ever before.



#### 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.

The result is premium quality rice that satisfies the most stringent international food quality and safety standards whilst matching exact customer accept requirements with ease.



#### Multi-Chromatic 'Ultra' Cameras

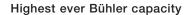
A completely new camera technology, unique to Bühler, following many years of research. Specifically designed to enhance defect detection in rice to accentuate the difference between grain colours in order to separate these into different classes of defects.

#### 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.

## Our highest ever capacity.





A first from SORTEX - six module optical sorter combined with our patented feed system to deliver a higher capacity per chute than even Bühler's own industry-leading standard capacity optical sorters.

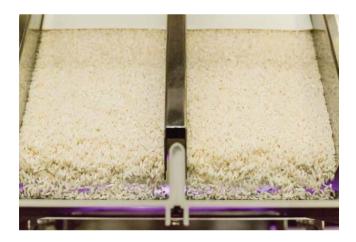


Pinpoint accuracy with Crosshair Targeting™ technology

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.

## Delivering outstanding productivity.

No two rice sorting applications are identical which is why the all-new SORTEX S UltraVision has been designed to offer outstanding productivity and peak performance. SORTEX S UltraVision will consistently and precisely meet the demands of the most challenging sorting environments, ensuring everything in your rice sorting application runs like clockwork.



#### Intelligent Automation

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

This ensures the output is consistent and reliable without the need for constant operator intervention.



#### Intelligent Modes

Created from over 65 years of sorting experience, the Intelligent Mode system pre-installs rice varieties to deliver a unique sorting experience.



#### Auto-Calibration

The Auto-calibration system optimises lighting and camera settings during initial set-up to ensure consistent performance throughout.





#### Easy access to optical viewing glass

SORTEX S UltraVision has been designed with an easier access to the optical viewing glass. Cleaning the area from dust and rice meal build-up ensures consistency of sorting performance and minimal disruption to operations.

#### Soft landing feature

The SORTEX S UltraVision is fitted with baffles in the accept spouts of the receptacles. These self-charge with grains when product is running and the good product is slowed down on this buffer of grain, almost eliminating product breakage. When the feed stops, these buffers self-discharge for a hygienic operation.

## Superior ease of use.

The SORTEX S UltraVision has been designed specifically with world-class serviceability and dependability in mind, featuring all-new proprietary easy to use software, SORTEX S UltraVision is the most efficient and intuitive optical sorter available with innovative remote access capabilities for real-time online support.

#### SORTEX ProSort™ operating software

The SORTEX S UltraVision is the first of the next generation of SORTEX optical sorters to be equipped with the new SORTEX ProSort software.

#### Export quality sorting in 3-easy-steps

This all-new operating system is set to dynamically change the way optical sorters are operated. Processors are now only three steps away from producing export quality rice - no lengthy manual set-ups, configurations and set backs. Just three steps to export quality sorting - select the rice variety, adjust sensitivity (if required) and press 'start'.

#### STEP 1.



#### Choose a rice variety

Choose the rice variety required from the list of pre-installed Intelligent Modes.

#### STEP 2.



#### Adjust Quality

Depending on sorting requirement, should you wish to adjust output quality further, individual sensitivity controls for each defect are provided.

STEP 3.



#### Press Start

SORTEX S UltraVision will now start sorting to your exact requirements.

#### Individual Defect Control - Power and control at your fingertips

Using only fingertip control, operators can select the percentage of each individual defect that is rejected without the need for additional programming or manual-set-ups.

## Excellent Serviceability.



#### **Remote Access**

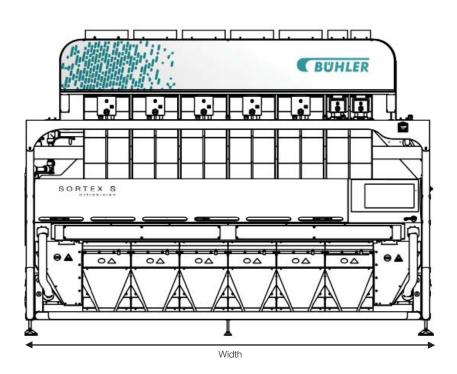
SORTEX S UltraVision comes with remote access capabilities. Bühler engineers can directly connect to your optical sorter from anywhere in the world, to give real time support, advice and adjust the sorting performance for optimum sorting results.

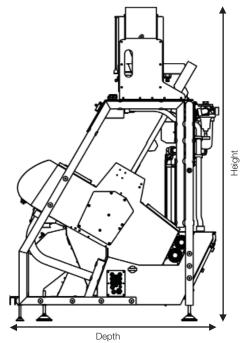


#### SORTEX Total Care - AnywarePro™

An innovative and intuitive alert system. Provides customers with real time performance report on ejection rates, performance data, defect analysis, statistic as well as traceability. Customers are now in control, and have the capability to make enhancements to better the optical sorting performance.

## Specifications.





#### **Technical details**

Machine	Typical air requirements¹ (N L/s)	Typical/Maximum Power consumption (kW) (200-240V; 50/60 Hz single phase)	
3 module	11.5	2.0 / 2.6	
4 module	14.4	2.4 / 3.2	
5 module	18.0	2.9 / 3.8	
6 module	21.6	3.2 / 4.4	

<sup>&</sup>lt;sup>1</sup> at 4.1 bar (60 psi) for 3% contamination, running at 2.5 tons per hour, per chute

#### **Dimensions and weight**

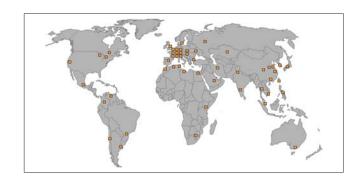
Machine	Width (mm, in)	Depth (mm, in)	Height (mm, in)	Weight (mm, in)
3 module	2113, 83	1372, 54	2060, 81	985, 2172
4 module	2113, 83	1372, 54	2060, 81	1025, 2260
5 module	2769, 109	1372, 54	2060, 81	1185, 2612
6 module	2769, 109	1372, 54	2060, 81	1225, 2701

### **SORTEX Customer Care.**

### Secure tomorrow's profits today.

Solutions and support to ensure that your optical sorter performs to maximum efficiency, delivering maximum productivity and making a maximum return on investment.

Bühler's worldwide Customer Care organisation delivers the highest quality local support by offering a variety of services under SORTEX Total Care\*.



#### **SORTEX Total Care**

SORTEX Total Care offer customers the opportunity to create their own service package, composed of individual service features that best suits their needs.

Customers have the flexibility to create their most suitable programme - whether that covers just those areas of prime concern, or a fully-comprehensive cover.

Comprehensive cover is suitable for customers who require continuous operation of the optical sorter where the processing line is of the utmost importance. This way, customers can ensure that their investment is fully protected.

Customers can tailor their individual package from the following options.

#### WearCare - Preventative Maintenance

A fixed number of visits per year. During the visit an engineer will carry out checks, adjustments and when necessary replace consumable or wear parts.

#### RepairCare - Emergency Repair

In the unlikely event of the machine failing, an engineer will visit and repair the optical sorter.

#### EjectorCare - Ejector Service and Repair

When the ejectors reach their refurbish point, an engineer will visit to replace the ejectors with the appropriate number of units for the whole machine.

## AnywareCare - Anyware Health Check and Alerts

The Anyware system allows the performance of optical sorters to be monitored remotely.

This diagnostic system facilitates a quicker response to any issues that might emerge. It automatically emails an alert message to the server, if an optical sorter develops a fault, or begins to operate outside normal working parameters.

An authorised engineer reviews the information in the alert, and advises whether adjustment is needed, or if the problem needs further attention.

#### **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.

#### \* All contracts are available for different durations

#### SORTEX Upgrade Kits

Suitable for customers who are seeking to upgrade to additional chutes and software.

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