



Rice
Sorting Solutions.

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

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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.



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.

Suitable for all rice varieties.



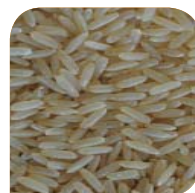
Long Grain



Short Grain



Red



Brown



Black



Jasmine



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.



Basmati



Aromatic



2 Rice Sorting Applications. Your most challenging sort, conquered.

Accept Reject



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.

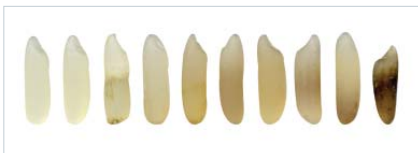
Brown rice

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.

From subtle to obvious defects



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



Foreign Material

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



3 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.

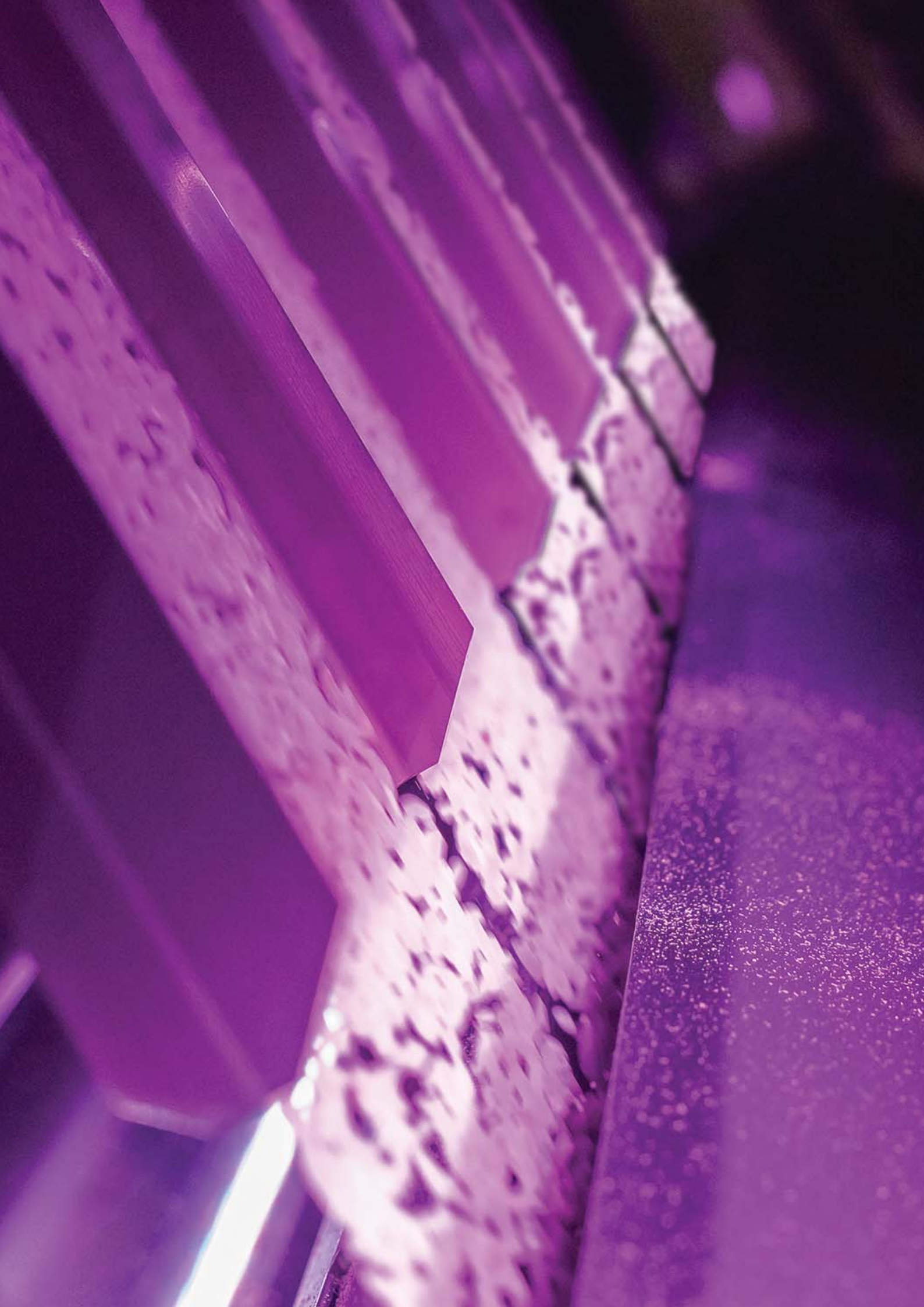


A giant leap forward in intelligent optical sorting for rice

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



4 Optimised for mainstream rice sorting. **SORTEX® B.**

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.

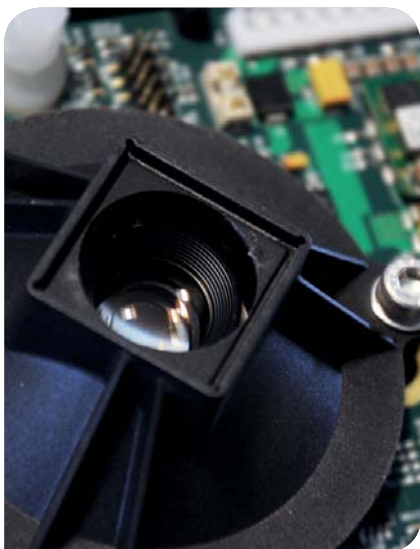
Features a combination of new and improved camera, lighting, ejection and detection systems, to deliver a reliable sorting performance for mainstream rice sorting applications. Removes colour defects and foreign materials for uniformed rice. The SORTEX B also offers smaller rice processors the flexibility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

- Enhance day-to-day sorting performance and high capacity processing
- Consistent and stable performance
- Simplified ease-of-use



5 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.



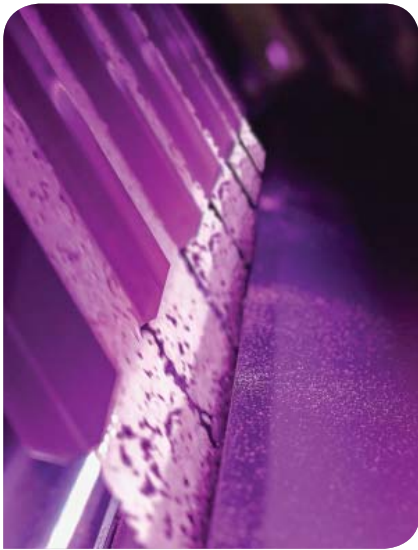
Textured LED Lighting™*

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*

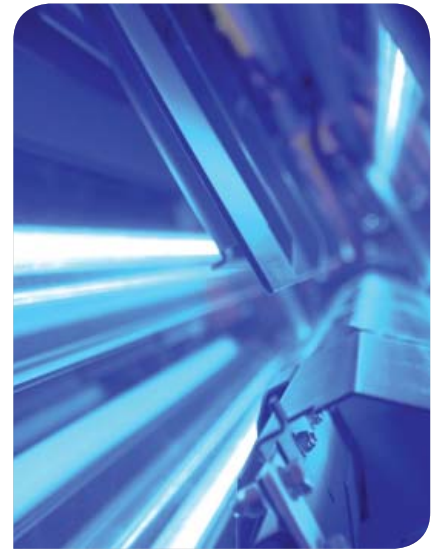
A combination of an all-new inspection system, comprising of Multi-Chromatic 'Ultra' cameras, Crosshair Targeting™ technology and Textured LED Lighting™ can detect the most subtle discolouration and defects including varying degrees of purples, greys, yellows, streaks, pecks, black tips, spots, chalky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

6 Model Variants and Specifications.

Product options

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

■ Standard ○ Optional

Features	SORTEX S UltraVision™	Features	SORTEX B
'Ultra' Cameras	■	'Ultra' Cameras	
Standard Cameras		Standard Cameras	■
Textured LED	■	Textured LED	
Standard InGaAs		Standard InGaAs	○
IR Lighting		IR Lighting	○
Crosshair Targeting™	■	Crosshair Targeting™	
SORTEX ProSort™	■	SORTEX ProSort™	
SORTEX ProSortX™		SORTEX ProSortX™	■
Intelligent Modes	■	Intelligent Modes	
Remote Access	○	Remote Access	○
Intelligent Automation/ Product Tracking	■	Product Tracking	■
Auto-Calibration	■	Auto-Calibration	■
CE Certification	■	CE Certification	■

Dimensions, air and power requirements

SORTEX S UltraVision™	Width mm	Depth mm	Height mm	Weight* kg	Typical air requirements (l/s)* 72-102 psi (5-7 bar)	Typical Power consumption (kW)** (200-240 V; 50/60 Hz single phase)
S3	2113	1372	2060	985	11.5	2.0 / 2.6
S4	2113	1372	2060	1025	14.4	2.4 / 3.2
S5	2769	1372	2060	1185	18.0	2.9 / 3.8
S6	2769	1372	2060	1225	21.6	2.9 / 3.8

SORTEX B	Width mm	Depth mm	Height mm	Weight* kg	Typical air requirements (l/s)* 72-102 psi (5-7 bar)	Typical Power consumption(kW)** (200-240 V; 50/60 Hz single phase)
B1	1000	1625	2088	500	8	0.9
B2	1787	1625	2088	927	16	1.2
B3	1787	1625	2088	970	24	1.5
B4	2387	1625	2088	1107	32	2.1
B5	2387	1625	2088	1150	40	2.9
B6	3047	1625	2088	1303	48	2.9
B7	3047	1625	2088	1350	56	3.1

* 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.

7 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® Upgrade Kits

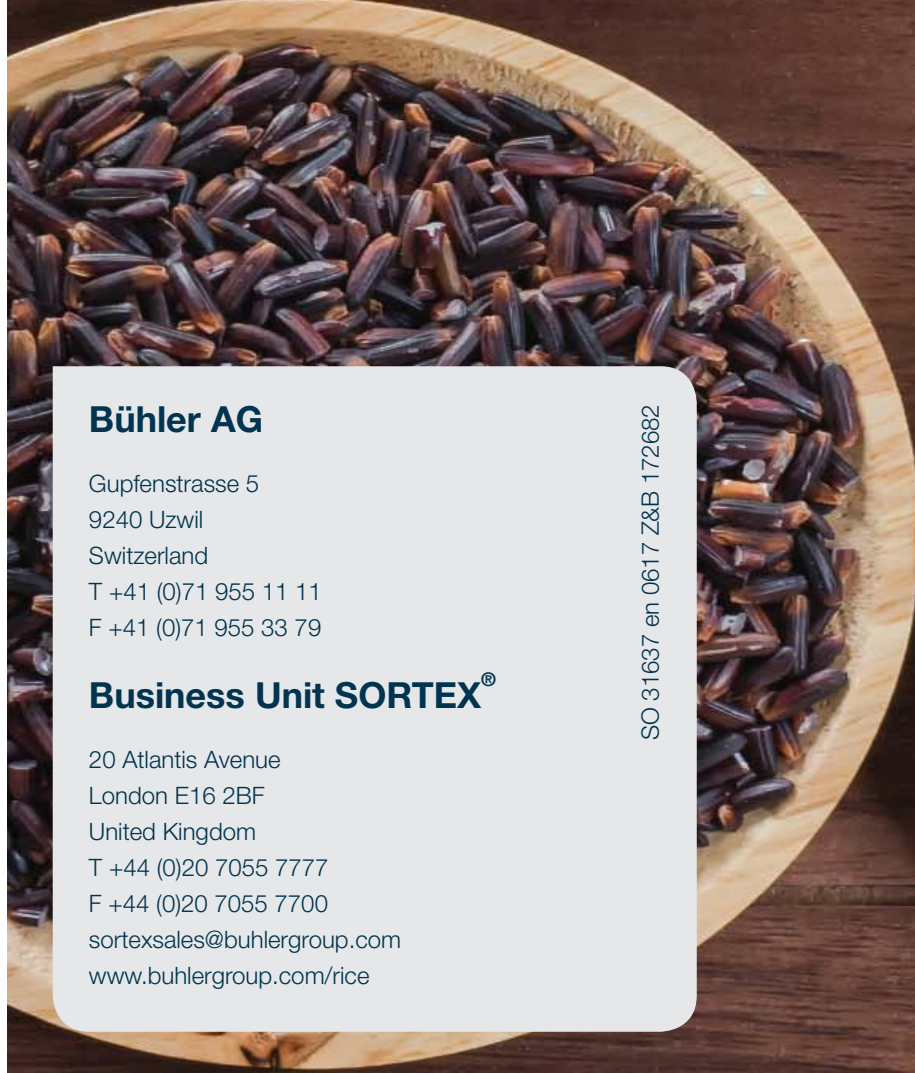
Bühler have designed various upgrade kits, for existing customers who are seeking to upgrade sorters with an additional module, new technology features or processing software.

SORTEX® Spare Parts

Various kits to suit different optical sorters are available for customers who wish to have spare parts available on site.

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.



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