



The next level of  
**optical sorting.**

Powerful sorting – SORTEX H  
SpectraVision with MerlinAi.



# Aligning to the **need of the hour.**

## **Digitalization**

In this digital age, people expect high levels of usability; Bühler's MerlinAi engine brings sorting machines up to speed. An engineer or skilled operator is not required for set-up or maintenance of the sorter, it is easy to set up and simple to use, no technical skills are needed. This attribute is even more important in the face of the current shortage of skilled workers across Europe and North America, MerlinAi provides a layer of assurance for processors.

## **Climate change**

Every single day, climate change gains more and more prominence in every part of our lives, including its increasing impact on crops. Solutions for concerns aggravated by climate change, such as mycotoxins, are critical. The Digital Technologies business area of Bühler continues to focus on innovations for solutions to combat this ongoing global crisis.

## **Food safety and hygiene**

As a knock-on effect of people around the world becoming more health-conscious, food safety and hygiene have gained immense importance. Consumers are now more aware and careful of the origin and processing of products. Bühler solutions have always been and will continue to prioritize food safety and hygienic processing.

# Evolve your sort process.

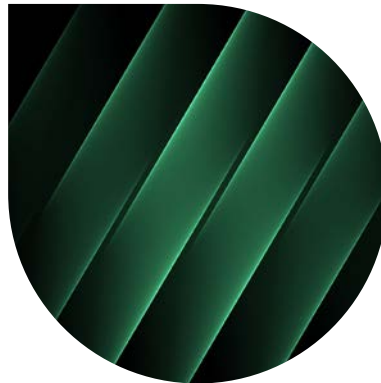
The new SORTEX H SpectraVision has been developed using the best of Swiss and British engineering know-how. As the result of our 75 years of extensive experience in optical sorting, it offers 3 key benefits for our customers:



## Improved performance

An all new optical sorter delivering up to 50% higher reject concentrations.

- In line with Bühler's goal to reduce energy, waste and water by 50% to feed the world population of 10 billion by 2050, the SORTEX H SpectraVision has been designed to supply maximum yields
- Innovative ejection algorithms significantly minimize false rejects
- New calibration and tracking algorithms improve machine consistency, reducing false rejects
- New LEDs with triple the amount of light, full color cameras combined with our new color detection, and defect size processing algorithms ensure superior defect detection



## Ease-of-use

No technical skills required for operation.

- Unmatched ease of use so required sort quality can be easily maintained
- Individual defect removal control to combat the ever-increasing number of defects appearing as a result of Climate Change and pesticide reduction
- Unrivalled mycotoxin, allergens and FM removal ensure absolute adherence to food safety regulations, thanks to full color and InGaAs cameras



## Connectivity

Control and view your machine performance from anywhere in the world, in line with Industry 4.0 standards.

- Machine setup changes logged and saved on Bühler Insights
- Real-time tracking of sorting performance and emergency warnings with SORTEX Monitoring System
- Full visibility and remote control automation integration options
- Contribute to process insights and multiply transparency across your entire line
- At-a-glance overview of your sorter's operation





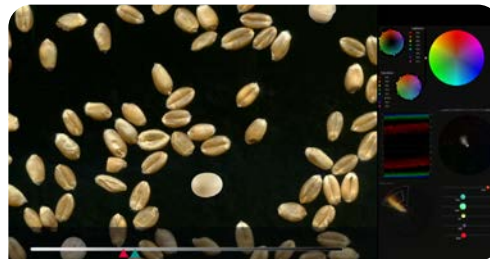
## Detect what **nobody else can.**

The SORTEX H SpectraVision is an all new optical sorter featuring new sensor technology, full color cameras, new software and a compact modern design with up to 7 chutes. A bigger UI screen and newly developed electronic hardware ensure optimum and reliable performance over time.



### **New cameras, designed for sorting**

SORTEX optical sorting cameras have been specially designed in-house to give industry-leading low signal to noise levels. The new full color cameras with better spectral purity between colors give the best color differentiation for the subtlest of defect colors. While new InGasAs cameras push foreign material (FM) detection to new levels.



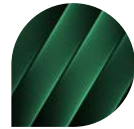
### **Intelligent sorting algorithms**

A new suite of algorithms and advanced learning techniques has been developed to elevate our customers' ability to remove foreign material (FM), and subtle defects while increasing product yield, moving your performance forwards and delivering ease of use. All new calibration and product tracking algorithms ensure consistency of sort-maximizing machine performance.



### **The development guarantee**

Bühler SORTEX is driven by passion, which is why we are continuing to work on improvements to make this machine even better, to suit ever-growing market challenges. New features, software solutions, and upgrades will guarantee that you have always state-of-the-art equipment in your plant.



## Simple and easy sorting.

The most simple to use optical sorter on the market. Time consuming performance optimizations and adjustments are a thing of the past. Now with preset modes any user, regardless of skill level, can change recipes and adapt them with our intuitive sliders. It is easy as optical sorting should be!

Mode Name	Last Modified	Type	Version
red 60	16:59 Wed 12 Aug 2020*	User	1
Arabica Coffee Brazil	16:09 Mon 10 Aug 2020	Preset	1
Red Lentils	15:37 Tue 11 Aug 2020	Preset	1
Green Lentils	Not Defined	Preset	1
Lentils User 1	16:09 Mon 10 Aug 2020	User	1
simple stats mode	Not Defined	User	1
red 60	Not Defined	User	1

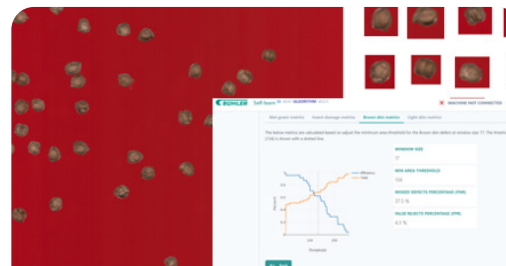
### Default modes

Default modes for each product optimized by SORTEX experts allowing for quick and easy product changeovers.



### Simple user interface

The simple design, formulation and bigger UI screen of the SORTEX H ensure easy navigation of the machine. Individual sensitivity control over each defect makes it easy for operators to achieve the optimum machine performance.



### SORTEX Smart ModeAssist

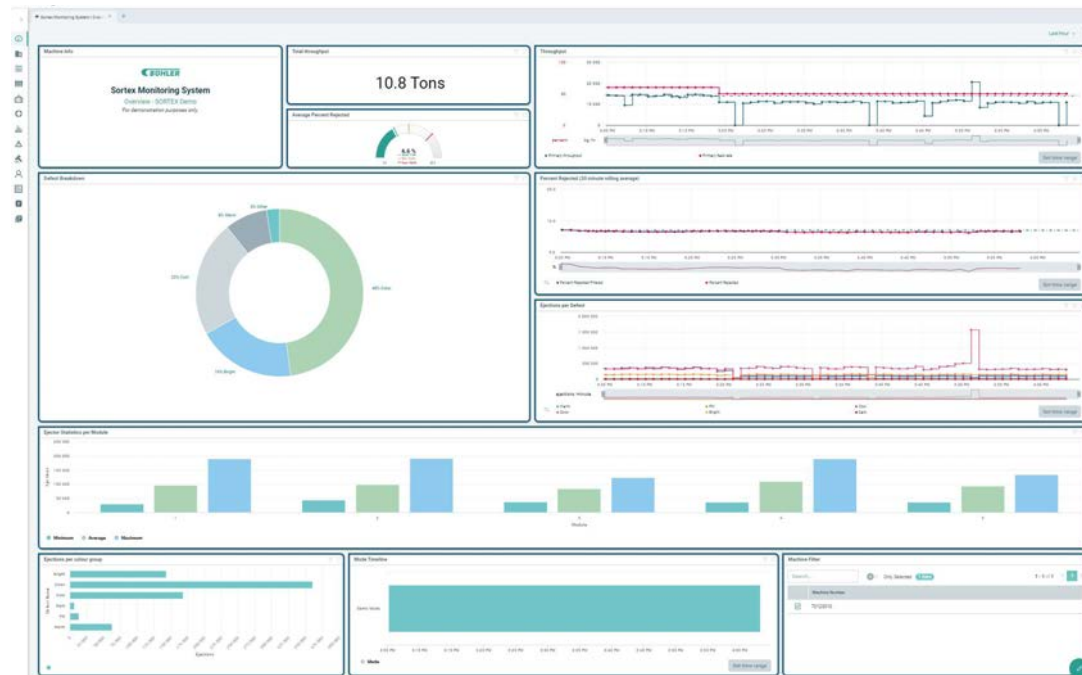
Smart **ModeAssist** analyzes hundreds of frames of data to optimize color, defect sizing and rejection algorithms. The **ModeOptimizer** tool allows the user to visualize the product that will be accepted and rejected for easy machine adjustment.





## Connect to **the future.**

The SORTEX H transforms your plant digitally. In line with Industry 4.0 standards, you can control and view your machine performance from anywhere. Furthermore, SORTEX Monitoring System provides you with vital information about your machine and plant – giving you complete transparency.



Make an informed decision from anywhere  
Remote operation monitoring & reporting powered by Bühler Insights



Act fast & save money  
Alarms & notifications on customized thresholds



Increase productivity  
Track shift performances & downtime



Reduce waste  
Access an overview of input contamination and ejections



No technical skills required  
Suitable for anyone in the factory to use and gain insights from the sorter

**Rise** to the next level.  
**Advance** your sort process.  
**Take a step** into the future.



# SORTEX H SpectraVision at a glance.

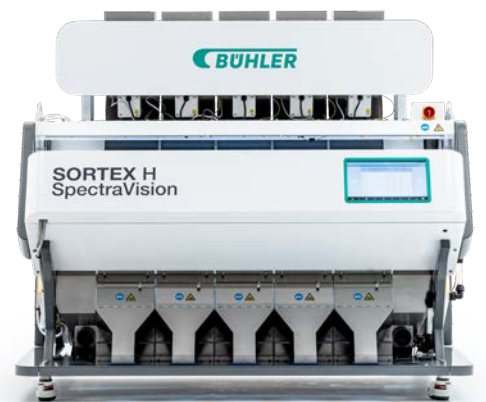
- 1 MerlinAi** advanced multi-layer sorting algorithms
- 2 High intensity** LED lighting gives out 3x the light of previous generations machines
- 3 Full color cameras** with better **spectral purity** between colors **enhances** defect detection
- 4 Design and validation** at Bühler's facility in London guarantees **super build quality**
- 5 Auto product tracking** to maintain machine performance. One calibration at recipe recall
- 6 Default sorting modes** developed and tested by Sortex experts for out-of-the-box operation
- 7 Simple to use user interface** easy machine operation so optimum machine performance can be checked and maintained
- 8 Bühler Insights connectivity** with SORTEX Monitoring System lifts efficiency, quality, and traceability to entirely new levels



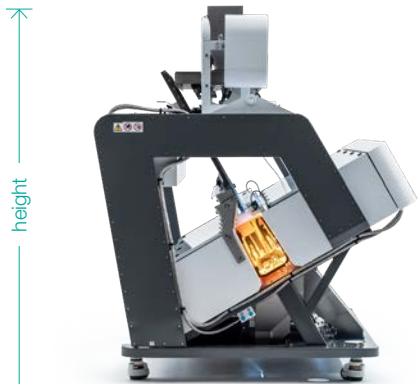


# SORTEX H SpectraVision

## technical specifications.



width



height

depth (doors closed)

	Machine width	Depth-doors open	Depth-doors shut	Height	Weight	Typical air requirements	Max power consumption	
	(mm)	(mm)	(mm)	(mm)	(kg)	L/s* 0.6 - 0.8 Mpa	(kW)** (200-240V; 50/60 Hz single phase)	
							TXTX	TRTR
H1	1085	2323	1776	2010 to 2088	552	8	2.0	1.6?
H2	1820	2323	1776	2010 to 2088	930	16	3.3	2.8?
H3	1820	2323	1776	2010 to 2088	973	24	3.3	2.8?
H4	2422	2323	1776	2010 to 2088	1257	32	4.8	4.4?
H5	2422	2323	1776	2010 to 2088	1300	40	4.8	4.4?
H6	3062	2323	1776	2010 to 2088	1639	48	6.2	5.9?
H7	3062	2323	1776	2010 to 2088	1682	56	6.2	5.9?

	H SpectraVision	H SpectraVision InGaAs		H SpectraVision	H SpectraVision InGaAs
Full color cameras	standard	standard	CE certification	standard	standard
InGaAs technology		standard	NRTL	optional	optional
High intensity LED lighting	standard	standard	ATEX / Hazloc	optional	optional
Xenon IR lighting		standard	Bühler Insights connectivity	optional	optional
Intelligent default modes	standard	standard	SortControl	optional	optional
Climate control	optional	standard	SORTEX TotalCare™	optional	optional
Remote access	optional	optional	Available modules	1 to 7	1 to 7

standard optional

# With you at every step.

We at Bühler believe in nurturing lifelong partnerships with our customers. We are here to help you 24/7, providing customer service that you can depend on. From maintenance and product testing, to training and digital services, our aim is to boost your production performance and ensure an unmatched quality of final product for your customers.

## Discovery

You discover Bühler via our experienced Sales Managers, through marketing collateral, at an event, or from our website. Together we discuss your problem areas and sorting needs.



## Validation and solution

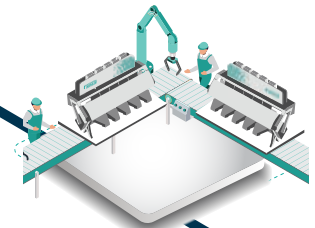
You send us your technical requirements and product photos, including any defects. If your application has been processed by our machinery before we can refer to our database of over 10,000 samples to propose one of our tried and tested solutions. If your commodity has not been tested by us before, we invite you virtually via livestream to run a small-scale sample test. Alternatively, you can visit one of our 14 applications labs located all around the world.

Based on the test results, we collaborate with you to create a bespoke Sortex solution that you are confident in, that will suit your unique processing requirements and increase your business performance.



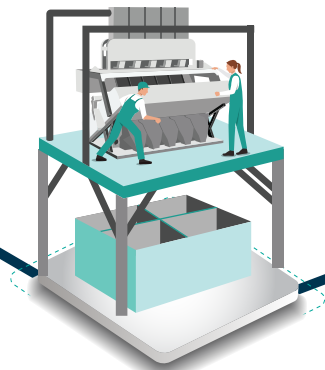
## Manufacturing

With 32 manufacturing sites around the world, we have a very high in-house production capacity, including development of intricate cameras and sensors. Our optical sorters are not built on stock, but rather based on your specific needs.



## Installation

Using integration drawings, the machines are fitted and tested by our experienced and highly trained local language speaking Service Engineers. They connect the machine to your plant's automation system using PLC or other plant networks.



## Performance Optimization

Connecting your sorter to Bühler Insights enables you to collect real-time data. Our digital services such as SORTEX Monitoring System and SortControl enable you to remotely monitor and control your sorting performance and turn it into actionable insights leading to productivity, quality and efficiency optimization.



## Remote Services

As a member of the Bühler family we offer you a range of aftercare solutions to enjoy, including: Tests, repairs and remote support from our Service Engineers based at 98 Bühler service stations around the world.

**myBühler portal** – our trusted customer portal which provides you with all the information you'll need to run your SORTEX machine.

**TotalCare** – our service package for repairs and performance optimization.

**Retrofit services** – which allow you to update or upgrade your machine, increasing its lifecycle.



## Operation

Our sorters are intuitively designed for easy operation and flexibility with quick product changeovers. We offer operator training courses conducted by our Service Engineers on-site at your plant.





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