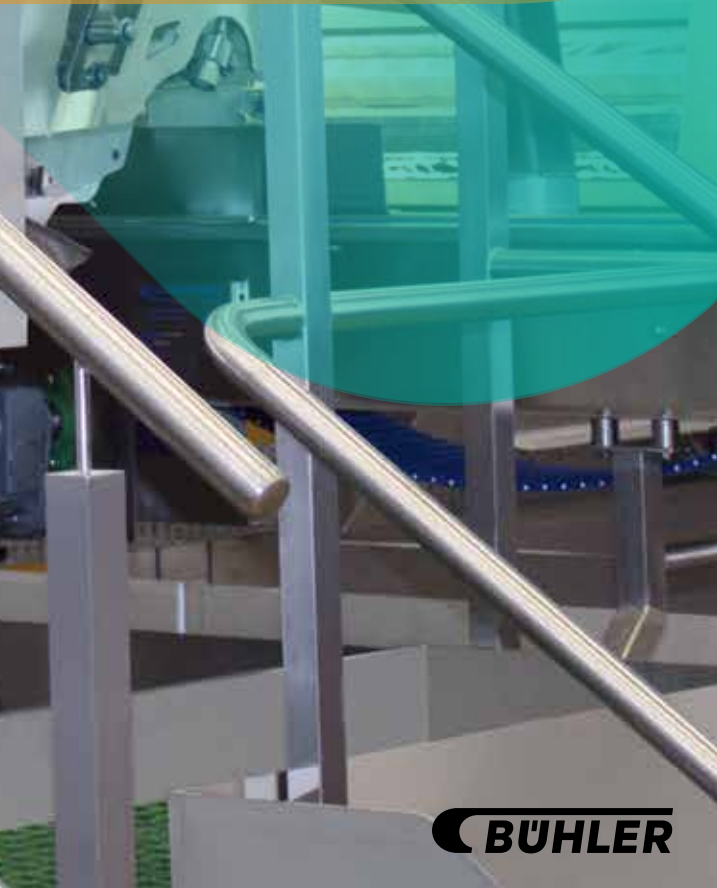




SORTEX® F
Fruit and vegetables
sorting, redefined.



SORTEX F Serious about food safety.

Fruit and vegetables sorting, redefined - delivering unprecedented foreign material detection in fruit and vegetable processing that represents the last word in food safety, hygiene, design and performance, with the SORTEX F range of optical sorters. Available in three frame sizes the SORTEX® F is perfect for small to large processors seeking maximum food safety and quality.



Pushing the boundaries in hygienic design with the most open and accessible frame the market has ever seen along with cutting-edge SORTEX PolarVision™ detection technology and new LED-Xenon lighting, the SORTEX F range takes high performance sorting to the next level for unprecedented defect and foreign material detection.

Custom built to remove gross and subtle colour defects, extraneous vegetable matter and foreign materials with

pinpoint precision and ease in a wide range of frozen applications for your safest and cleanest produce yet.

The pioneering SORTEX F optical sorter can be configured at any point after IQF or in the packing line, giving you the greatest possible flexibility and a solution tailored to individual sorting needs.



Frozen Green Beans



Frozen Peas



Frozen Carrots



Frozen Blueberries



Frozen Raspberries



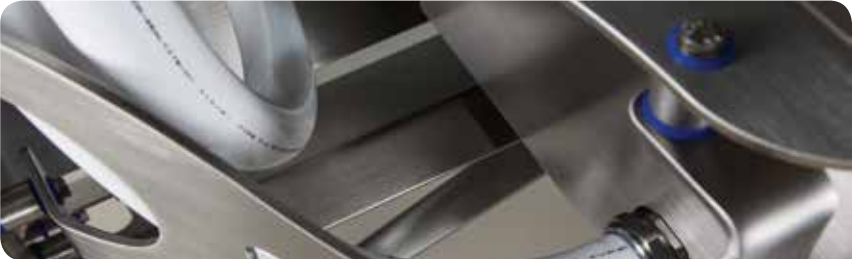
Frozen Strawberries

SORTEX F Safety, hygiene, design and performance.



FA1
600mm chute

Designed with hygiene and food safety in mind.



SORTEX F At a glance.

1 Accessible, stainless steel frame

Every element from the stainless steel frame to the hygienic screws have been carefully selected with food safety in mind – leaving no detail untouched.

2 Hygienic, adjustable chute

Available in 600mm, 1200mm, and 1800mm, this ultra high molecular weight polyethylene (UHMW-PE) chute provides the perfect easy to clean, non-stick surface which is FDA and USDA approved. The SORTEX F chute is also easily adjusted and can be lifted, allowing processors greater access to the inside of the machine.

3 Unique open receptacle

Unique to Bühler, the receptacle is easily opened and closed to give processors deeper access for cleaning, reducing the risk of contamination.

4 State of the art detection system

Available with the revolutionary SORTEX PolarVision™ detection system, a combination of two pioneering technologies – PolarCam™, InGaAs^{HD} - for unrivalled foreign material and defect detection.





5 LED Xenon foreground lighting

Provides consistent broad-spectrum lighting across the view for more uniformity with less shadowing.

6 LED background

With red, green and blue backgrounds, processors can define the optimal sorting mode regardless of the application being sorted.

7 Larger, 17 inch user interface

Enhanced user interface comes with larger screen and controls, simplifying usability for the operator

8 SORTEX ProSortX™ operating software

New SORTEX ProSortX™ operating software comes as standard. Featuring a fresh new interface that's modern, clean and intuitive to use.

9 Smart Sorting capabilities

Featuring self-learning features, pre-set and user-define modes for click and forget sorting that minimises operator intervention.

SORTEX F

The ultimate foreign material detection.



■ **The most hygienic optical sorter, lowering your risk of contamination.**

Every element has been designed with the highest levels of food safety and hygiene in mind. From the stainless steel frame, sloped surfaces, hygienic cables, stainless steel air set and hygienic grade screws and fixings, the SORTEX F delivers the most hygienic solution in the market with no tolerance for product build-up, lowering your risk of contamination.

■ **Unprecedented foreign material detection with SORTEX PolarVision™.**

Available with Bühler's new cutting-edge SORTEX PolarVision™ detection system. Combining two pioneering technologies - PolarCam™ and InGaAs^{HD} - to detect all types of foreign materials in frozen fruit and vegetable applications including dark and light coloured plastics, wood, glass, snails and cardboards – giving you a solid line of defence with minimal yield loss and absolutely no compromise on performance.

■ **Eliminate gross and subtle colour defects with custom-built visible cameras.**

The all-new SORTEX F can also be equipped with Bühler's industry leading, high definition visible cameras to detect gross and subtle colour defects, ensuring product quality and uniformity is achieved every time.

■ **High definition InGaAs^{HD} technology detects foreign material down to half the size**

When the SORTEX PolarVision™ detection system is not selected, the SORTEX F can still be equipped with high definition InGaAs^{HD} technology and paired with custom-built visible cameras. With higher definition and double the resolution, InGaAs^{HD} detects foreign materials down to half the size in the near-invisible infrared spectrum.

■ **Customisable LED lighting for optimum sorting performance.** Sophisticated LED-Xenon foreground lighting provides the ultimate broad-spectrum lighting for greater uniformity with less shadowing whilst new LED background lighting comes with red, green or blue options to ensure optimal sorting performance is achieved, no matter the product being sorted.

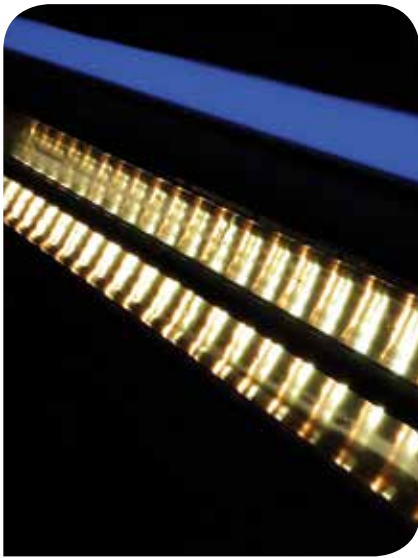
■ **Powerful ejectors with an option of Ejector⁺, offering 25% more force for heavier product rejection.** 128, 256, or 384 of Bühler's most powerful ejectors remove materials with pinpoint precision and ease. Anything from fine wood shavings and light extraneous vegetable matter to heavier objects such as sticks, stones and glass, hazardous materials are removed with force whilst ensuring your valuable and fragile produce is protected.

■ **The most open design, for superior cleanability.** A sophisticated, modern and cutting-edge design that's not only practical for the frozen fruit and vegetable processing industry but offers superior access and cleanability too. The innovative UHMW-PE chute is available in 600mm, 1200mm, and 1800mm, and can be adjusted upwards allowing operators to step inside of the machine as well as a unique receptacle which can be opened and closed providing access to areas that have never been reached before.

■ **Fully equipped for a digital world.** Featuring Bühler's new SORTEX ProSortX™ operating software which comes with a fresh new interface that's modern, clean and intuitive to use, streamlining everyday sorting tasks for the operator. The new user interface is showcased in a larger 17 inch screen with innovative FingerTipControl™ technology, larger buttons and controls making it easier than ever to configure your sorting set-up.

SORTEX F optical sorter technologies. **Innovations and leadership.**

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



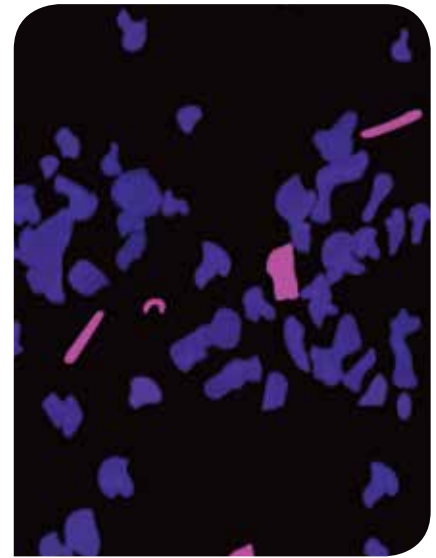
Sophisticated LED lighting

Sophisticated LED-Xenon foreground lighting provides the ultimate broad-spectrum lighting for greater uniformity with less shadowing whilst new LED background lighting comes with red, green or blue options to ensure optimal sorting performance is achieved, no matter the application being sorted.



Custom-built visible cameras

Bühler's high resolution colour cameras are custom-built in house and designed to remove gross and subtle colour defects, increasing overall product quality and uniformity.



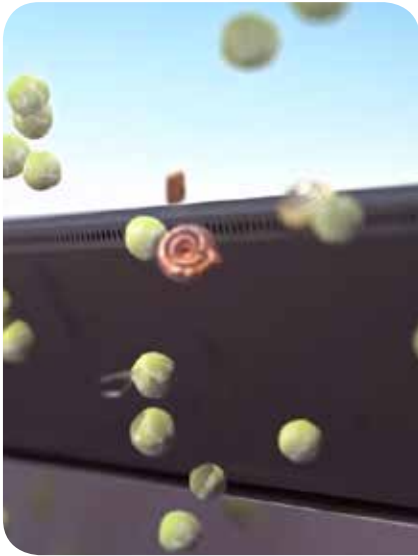
High definition InGaAs^{HD} technology

The next generation infrared detection technology from Bühler now in high definition with double the resolution to detect foreign materials down to half the size. With three times as many pixels, new InGaAs^{HD} detects the smallest pieces of hazardous materials that cannot be seen in the visible spectrum, adding another layer of assurance.



Technology feature **SORTEX PolarVision™**

Safeguarding fruit and vegetable processing - for the safest produce in your packs. Incorporates the latest in technology for detection of foreign materials, simplifying the most complex sort.



SORTEX PolarVision™

The proprietary specialist detection system, combining two pioneering technologies for unprecedented foreign material detection.

PolarCam™ technology

Targets the spectral and spatial differences between the commodity and foreign materials

High-definition InGaAs^{HD} cameras

Detect foreign materials in the near invisible infrared spectrum for the most advanced solution, designed for the frozen industry.

SORTEX® ejector technology with Ejector+

Bühler's most powerful ejectors, precision built for high speed ejection, now available with Ejector+. Removes heavier foreign materials with pinpoint precision for the safest and cleanest produce yet.



Snails



Glass



Wood



Black Plastic

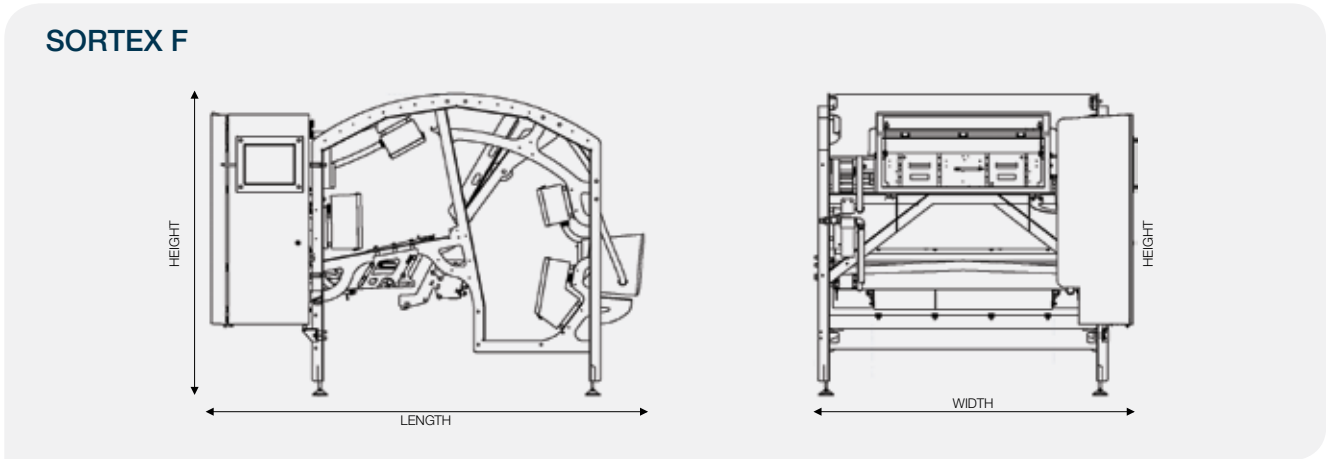


White Plastic



Coloured Plastic

Model Variants and Specifications.



Product options

Features and Specifications	SORTEX F PolarVision™	SORTEX F
SORTEX PolarVision™	■	
Ejector+	●	●
Colour Cameras	■	■
InGaAs ^{HD}	■	●
PROfile™ technology	■	■
LED Background lighting	■	■
LED-Xenon lighting	■	■
Remote access	●	●
SORTEX ProSortX™	■	■

For the full feature list and product specifications contact your local representative.

■ Standard ● Optional

Dimensions, air and power requirements

SORTEX® F Range	Chute size mm	Width mm	Length mm	Height mm	Weight* kg	Typical air requirements (l/s)* 102-116 psi (7-8 bar)	Typical Power consumption (kW)** (200-240 V; 50/60 Hz single phase)
SORTEX FA1	600	1610	3010	2112	850	Standard 32 Ejector+ 45	2.4
SORTEX FA2	1200	2210	3004	2112	1250	Standard 65 Ejector+ 90	4.75
SORTEX FA3	1800	3174	3003	2281 [#]	1980	Standard 98 Ejector+ 135	6.4

* Unpacked weight. Figures will vary based on machine product options.
Includes Lamp Beacon.

* 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® 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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