SORTEX E1C Optical Sorter.

Engineered for precision sorting.
Redefining concepts and setting standards. Engineered for precision sorting.

The SORTEX E1C sets new standards in hygienic, precision sorting with consistent yield - truly reflecting the Bühler tradition for innovation and leadership in technology. With over 65 years at the forefront of optical sorting, Bühler continues to meet and exceed expectations to secure the highest levels of food safety and product quality globally.
Advanced inspection system
High-resolution, ultra-low noise proprietary cameras can detect and reject product with subtle colour and spot defects.

Sophisticated Image Analysis
Individual sensitivity and size controls detect foreign material. The system carries a selection of filter options, from blue to short-wave infrared (SWIR) wavelengths to enable the detection of specific defects.

Gentle Handling
Curved “Accept” receptacle ensures gentle handling of delicate products, particularly when good product is fed on to a forward-running ‘Accept’ take-off belt.

Long Life, Serviceable Ejectors
A long life, robust and easily maintained ejector has been specifically designed for the SORTEX E1C. The ejector, along with SmartEject™, ensures that after unwanted material is detected, it is removed efficiently from the good product stream with minimal loss of good material.

Construction
Open design stainless steel construction for hygienic operation and easy cleaning.

Climate Control System
This maximises stability by maintaining constant temperature in the optical cabinets and main control cabinet over a wide temperature range (up to 50° C ambient temperature). It requires the use of a water chiller unit.

SORTEX ProSortX™ operating software
Updated software from Bühler comes with a fresh new interface that’s modern, clean and intuitive to use. Featuring innovative FingerTipControl™ and all-new Bühler ATOM™ board for faster processing and navigation between screens.

Pre-set Modes
The SORTEX E1C has the option to save up to 100 pre-set and 100 user-defined product modes (recipes). Optional automatic optical filter changer is linked to product modes for instant product changeover.
SORTEX E1C technology
Enhanced sorting performance.

Engineered to satisfy current hygiene requirements set by the food industry, the SORTEX E1C has a stainless steel frame and an open design construction which allows easy access for thorough cleaning and wash down.

Equipped with cutting edge technologies from Bühler including custom-built visible cameras, high definition InGaAs™ technology, broad-spectrum lighting, PROfile™ and high speed ejectors for yields of unrivalled quality.

SORTEX ProSortX™ operating software
The latest update of Bühler’s proprietary operating software comes with a fresh new interface that’s modern, clean and intuitive to use. Featuring innovative FingerTipControl™ and all-new Bühler ATOM™ board for faster processing and navigation between screens.

Broad Spectrum Lighting
With Broad Spectrum Lighting from Bühler, processors can view a wide range of contaminants and colour defects by using a selection of targeted filter options, from blue to short-wave infrared (SWIR) wavelengths, for greater flexibility in the detection of specific defects.

InGaAs™ 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 previously possible. With three times as many pixels, new InGaAs™ detects the smallest pieces of hazardous materials that cannot be seen in the visible spectrum to meet the most stringent food safety and quality regulations globally.
SORTEX E1C technology
Maximum precision and efficiency.

**Dust Management System**
The SORTEX E1C in-feed vibrator has a built-in air leg which removes dust and loose debris from the product immediately before the viewing area.

This feature significantly enhances the sort quality in both the accept and reject channels.

**Curved receptacle**
A notable feature of the SORTEX E1C is the curved receptacle, which guides the good product down a gentle ski slope, preventing unnecessary product breakage.

**Climate Control System**
The SORTEX E1C has a Climate Control System fitted to the camera boxes to ensure stable and reliable operation in extreme temperature ranges.

**High speed ejectors**
Custom-designed and precision built for long life, high speed and easy serviceability.

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**PROfile™ Technology**
This proprietary Bühler technology detects defects and foreign material which are the same colour as the good product by their shape, size and colour characteristics, adding another layer of assurance for increased product quality.

- **Under and over sized objects for greater value**
- **Colour defects by individual or combined area defect detection**
- **Removes foreign material for a cleaner and safer product**
SORTEX E1C specifications.
Technical details.

**Technical Details**

<table>
<thead>
<tr>
<th></th>
<th>Power consumption</th>
<th>Air requirements*</th>
</tr>
</thead>
<tbody>
<tr>
<td>SORTEX E1C</td>
<td>2.5 kW (Total)</td>
<td>Typically 32 l/sec for colour sorting</td>
</tr>
<tr>
<td>Vibrator</td>
<td>1 kW (Total)</td>
<td></td>
</tr>
</tbody>
</table>

* The compressed air consumption of the sorter varies depending upon throughput and input contamination

**Dimensions and Weight**

<table>
<thead>
<tr>
<th>Machine (With Vibrator)</th>
<th>Width (mm, in)</th>
<th>Length (mm, in)</th>
<th>Height (mm, in)</th>
<th>Weight (kg, lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Chute</td>
<td>1514, 60</td>
<td>3194, 126</td>
<td>2190, 86</td>
<td>680, 1500</td>
</tr>
<tr>
<td>Long Chute</td>
<td>1514, 60</td>
<td>3194, 126</td>
<td>2657, 105</td>
<td>680, 1500</td>
</tr>
</tbody>
</table>

**Features**

- Stainless steel construction and open design
- High resolution visible cameras
- InGaAs\(^{ID}\) Technology
- Halogen Lighting
- PROfile (Shape) Technology
- Climate Control System
- Air leg built into the in-feed vibrator

**Benefits**

- Hygienic operation and easy cleaning
- Detects and removes small and subtle colour defects and most foreign material
- Detection and removal of problematic foreign material
- A very stable solution giving flexibility in defect detection
- Allows additional removal of defective material
- Ensures consistent performance
- Improved handling of dusty products
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 suit 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.

**SORTEX Upgrade Kits**
Suitable for customers who are seeking to upgrade sorters with an additional module, features or software.