Optical sorting for pet food. Making product recalls a thing of the past.
Optical Sorting from Bühler.
Equipment and Solutions.

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A leading supplier of optical sorting solutions.
An integral part of the pet food industry.

Bühler is a leading global supplier of optical sorters as well as a complete solution provider of pet food machinery (i.e. grinding, mixing, extruding, drying, bagging, etc.). Our ability to provide complete solutions combined with in-depth industry experience gained over multiple decades allows us to offer the best solution to each of our customers.

With a commitment to substantial investment in research and development, we at Bühler are committed to developing state-of-the-art technology that empowers processors to confidently meet stringent food safety and quality requirements to maximize their productivity and profitability.

Consequently, pet food producers can be certain of world-class performance when placing Bühler's optical sorters in their production lines.

**Why Bühler?**

- Complete solution provider for pet food with in-depth process understanding
- Application centers to run trials with your pet food product
- Excellent customer service with more than 100 service stations all over the world
- Solutions designed for best performance and high feed safety standards
Why sort pet food?
Make product recalls a thing of the past.

Biggest threats in pet food production.

1. Foreign material.
   No more grains, plastic, strings, stones, etc. Fewer rejected shipments, less customer complaints/recalls.

2. Cross contamination.
   Reduction in undesirable colors and shapes. High uniform product of equal size.

3. Under-/oversized.
   Less broken and kibbles sticking together.

4. Aflatoxin.
   Aflatoxin in corn is not visible and has been a serious challenge for US based pet food producers recently.

5. For any other applications, please contact us.

The solution for premium pet food.
Recent recalls have also been a reminder of how paramount safety is in pet food production. Furthermore, customer expectations of the quality of pet food are continuously increasing. The biggest risks arise from foreign material, cross contamination, under- and oversized kibbles as well as aflatoxin in raw material. Optical sorters from Bühler with removal efficiencies of up to 99% offer solutions to these pressing issues and allow pet food producers to manage their risk and subsequently lower the probability of any costly product recalls.

For any other applications, please contact us.
SORTEX® H optical sorter.
The next level of optical sorting for Pet Food.

Optical sorting of grains at the start of the process

- Improved performance
- Ease-of-use
- Connectivity
- New cameras designed for sorting
- Intelligent sorting algorithm

Commodities

- Rice
- Barley
- Buckwheat
- Oats
- Corn
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 traceability to entirely new levels
SORTEX® F optical sorter. For the safest, highest quality pet food.

The industry’s most hygienic optical sorter, developed for pet food processors is now available featuring technology that has transformed the nuts and frozen fruit and vegetables industries.

- Capacity up to 12t/h
- Highest food safety standards, open design
- Ease of operation
- Available with one/two modules
- Simultaneous re-sorting for best efficiency

This pioneering sorter is best positioned as close as possible to the packing line for the highest end product quality.
SORTEX® F optical sorter.
At a glance.

1. **Accessible, stainless steel frame**
   Every element from the stainless steel frame and sloped surfaces to the hygienic screws has been carefully selected with food safety in mind – leaving no detail untouched.

2. **Anodized, adjustable chute**
   Anodized, adjustable chute provides an easy-to-clean surface for processing. With higher processing capacities and re-sort capabilities, the chutes are easily adjusted, allowing operators greater access inside the machine.

3. **Unique open receptacle**
   Unique to Bühler, the receptacle can be easily opened and closed to give processors maximum access for cleaning, reducing the risk of contamination. This receptacle is combined with a state-of-the-art dust extraction system creating the optimum working environment.

4. **State-of-the-art detection system**
   Available with pioneering SORTEX technology – this unique configuration of detection technologies includes color cameras for simultaneous detection of color defects, and foreign materials.

5. **LED XENON foreground lighting**
   Provides consistent broad-spectrum lighting across the view for more uniformity with less shadowing.
SORTEX® F optical sorter. At a glance.

6 LED background
With red, green and blue backgrounds, processors FDQGH1QHWKHSRLP0VRØULQJPRGSHQGHQWRQRI the product being sorted.

7 Larger, 17-inch user interface
Enhanced user interface features a larger screen and controls, simplifying usability for the operator.

8 SORTEX ProSortX 4.0 operating software
ProSortX 4.0 builds on the success of the original ProSortX with a clean new look, Industry 4.0 readiness and a host of new features.

9 Smart Sorting capabilities
Featuring self-learning capabilities with pre-VHWDQXVUHWGPRGHVIRUFQGIRUJHWVROULQJKWDPLQLPLQHVRSUDWRU intervention.

10 Ultra-modern cooling system
Maintaining consistent temperatures across the entire sorting function, this integrated system enables consistent component performance DQGSRGFWTXDOLW.
SORTEX® F optical sorter technologies.
3-in-1 interconnected detection technology.

SORTEX® PROfile™ technology.
A combination of three dynamic technologies which enable Bühler optical sorters to perform even the most complex sorting tasks. Designed with PXOWLSOHYHOVRIVKDHSVLYHDQGFRORUGHWHFWLQRWGRGLOLHUDXQLIRUPSRUXXFW TXDOLWIDWWKIKRJCHWFFDSDLW\SRVVLLOH7KLVX8\WSR\UTBRVQ16XH\R\DQDO]\HVSURGXFHIURPERWKVLGHVWR3HUSURFHVVRUVWWRDQO\DVVXUDQF

PROsize™
$\text{VDSURJHVVLQIURPFDWLQLRQDO|UDGLQ} VR\text{WLRQV 352VL}|H$
can be employed in situations where product is too delicate RUGL4FXOWREHVRUGXLQQ\FQYHQWLRQDO\FKOQLFDO
JUDGUV7KLVPL\HV5UR1WDELOLW\|GLWVLQ|XLV\KJ|WK

PROcolor™
$\text{URFHVRUVFDQGHINGHWDHPD|LPXPSHUFHQWD|HRIVXUIDFH}$
EOHPLVIKDHSVHCLUDLORUFXVRPHWHSF1FDLQVH

PROshape™
$\text{3URFHVRUVFDQGHINGHWDHPD|LPXPSHUFHQWD|HRIVXUIDFH}$
EOHPLVIKDHSVHCLUDLORUFXVRPHWHSF1FDLQVH

PROfile technology.
To remove any “object” with shape features which vary from the good product (broken, \text{RUYHUXQGHUWLJHGFURVV}
contamination from previous batches with same color, etc.)

Sortex color cameras.
To remove any “object” with color variations from the VSHFL1HGDFHSFWF\text{ORUVFURVV} FRQWDQDWLRLQIURP previous batches, colored foreign material, etc.)

PROshapes™
PROshapes™ is an intelligent detection technology which inspects the product based on shape criteria when the defective product is the same color as the good product.

InGaAs technology.
To remove any foreign material (grains, plastic, strings, stones, etc.)
SORTEX® A LumoVision.
The most efficient and reliable way to remove and monitor aflatoxin.

LumoVision is the first optical sorting technology able to identify aflatoxin based on direct indicators of contamination, while simultaneously using real-time, cloud-based data to monitor and analyze contamination risk.

Contaminated grain (fluorescent green) and healthy grain (fluorescent blue.)

Contaminated grains mixed with healthy grains

With LumoVision, food, feed, and pet food manufacturers can protect their product from increasing yields and reducing waste.
At the leading edge of optical sorting.
Technology meets hygienic design.

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

Intelligent ejector technology.
6DUW(MHFKJLVSHHKJJK2RZ
HMHFWRUVH4FLHQW0UHPRYHGH1FWV
with pinpoint precision and accuracy.

Designed with hygiene and food safety in mind.
7KHFPELQWLQR1DVLQ06HVVW1L01D6HKSJLHQFLJLQ7V0DQRSLQ90GHVLJQH1VX0VW
hygienic sorter for pet food in the market.
Making product recalls a thing of the past. By using optical sorting, pet food producers can reduce their risk of product recalls by 95% or more.
A partnership you can count on for your entire asset lifecycle

Solution
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.

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
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.

Validation
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.
Remote Services
Our advanced analytics tools such as AnywarePro, BühlerInsights and remote control functionality enable you to monitor your line and react from any location, for increased performance optimization.

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.

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.

Performance Optimization
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 SHUJRUDQFHRSLPL]DWLRQ Retrofit services - which allow you to update or upgrade your machine, increasing its lifecycle.