

Optical Sorter Market with COVID-19 Impact Analysis, by Type (Cameras, NIR, Lasers, Hyperspectral Cameras & Combined Sorters, Other types), Platform (Freefall, Belt, Lane, and Hybrid), Application and Geography - Global Forecast to 2027

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Abstracts

The optical sorter market is expected to grow from USD 2.6 billion in 2022 to USD 4.1 billion by 2027, at a CAGR of 9.9% during the forecast period. Increasing adoption in the food industry for food processing activities and for reducing process and delivery time is expected to drive the optical sorter market and to promote new revenue opportunities for optical sorter manufacturers. Owing to the growing demand for food products across the globe, the food industry is increasingly focusing on reducing process and delivery times.

Furthermore, increase in wages of the manual workforce in various countries is also expected to raise the demand for optical sorter systems. To counter this, many industries are focusing on reducing manual labor while increasing automation is expected to increase the adoption of optical sorters in various industries in the coming years.

“Market for belt platform for camera type optical sorters is expected to grow at higher CAGR during the forecast period”

The market for belt platform for camera type optical sorters is expected to grow at the fastest CAGR during the forecast period. Conveyor belt recycling sorting systems are ideal for sorting mixed, piece, or shredded materials. The material (e.g., PET bottles, electrical waste, scrap metal, and household waste) is optimally distributed to the detection area via a fast-moving conveyor belt (or configurable belt speeds).

Furthermore, the belt-type structure design provides a lower damage ratio for delicate food items. The materials are less likely to collide when transported horizontally by a uniform and stable conveyor. As a result, its damage ratio is significantly lower than that of a traditional chute-type color sorter.

“Market for hyperspectral cameras & combined sorters for food application is expected to account for the largest during the forecast period”

The market for hyperspectral cameras & combined sorters for food application is expected to account for the largest during the forecast period. It is further expected to grow at the fastest CAGR throughout the forecast period. HSI enables the detection of foreign objects in real-time, with pinpoint accuracy and dependability. Hyperspectral sensors are gradually being adopted by the food processing industry. When combined with machine learning algorithms, HSI sensors enable digital sorters to detect and remove foreign material automatically. The rapid and precise detection of HSI sensors detecting foreign objects in bulk food streams saves time and money. Objects found in food production lines include plastics, glass, wood, rubber, metal, stones, and other materials. All of these foreign materials can be easily detected using hyperspectral cameras and combined sensors.

“Vegetables & fruits sub-application is expected to dominate the optical sorter market for food application throughout the forecast period”

Vegetables & fruits sub-application is expected to dominate the optical sorter market for food application throughout the forecast period. According to Knoema data source, in 2020, the total Asian vegetable production was 990,043,085 tons whereas the total Asian fruit production was registered to be 568,539,336 tons. The vegetables & fruits production in Asia increased at a 2.08% annual rate in 2020. The vegetables & fruits production in Asia is further expected to increase with the increasing population in the next 5 to 6 years. Similarly, the vegetables & fruits import value in Europe in 2020 was USD 137.5 billion, and in Africa the vegetables & fruits export value was USD 16.6 billion in 2020. The rapid automation in APAC and African countries in the food industry is expected to propel the market for optical sorters for vegetables & fruits application in the foreseeable future.

“Optical sorter market in Asia Pacific region to register highest CAGR between 2022 and 2027”

The optical sorter market in Asia Pacific is expected to grow at the highest CAGR during

the forecast period. Increasing investments in automation by food, recycling, and mining companies, especially in China, South Korea, and India, are expected to be the key driver for the rapid market growth in Asia Pacific. Hence, with automation, the growing demand from food, recycling, and mining industries in Asia Pacific is expected to drive the optical sorter market during the forecast period. China is recovering rapidly from the manufacturing slowdown due to the COVID-19 pandemic, and South Korea, India, and Thailand are pushing for further automation. Asia Pacific's high CAGR is due to developing countries like India and the Philippines, which have high GDP rates and attract investments in food, recycling, and mining industries from various countries. The Asia Pacific region shows the highest potential for revenue generation in the optical market during the forecast period, and this is mainly due to the recent advancements in optical sorting machines by Asian companies such as Hefei Meyer Optoelectronic Technology (China), Hefei Taihe Intelligent Technology Group (China), Angelon (China), and DAEWON GSI (South Korea). Due to the growing deployment of optical sorting solutions, the Asia Pacific region is catching up with the North American and European regions in terms of market growth.

Breakdown of primaries

In the process of determining and verifying the market size for several segments and subsegments gathered through secondary research, extensive primary interviews have been conducted with key industry experts in the optical sorter market space. The break-up of primary participants for the report has been shown below:

By Company Type: Tier 1 – 40%, Tier 2 – 30%, and Tier 3 – 30%

By Designation: C-level Executives – 40%, Directors – 40%, and Others – 20%

By Region: Americas –35%, APAC– 35%, Europe – 20%, and RoW – 10%

The report profiles key players in the optical sorter market with their respective market ranking analysis. Prominent players profiled in this report are TOMRA (Norway), B?hler (Switzerland), Hefei Meyer Optoelectronic Technology (China), Satake (Japan), Allgaier Werke (Germany), Key Technology (US), Binder+Co (Austria), Hefei Taihe Intelligent Technology Group (China), STEINERT (Germany), AWETA (Netherlands), Pellenc ST (France), Techik Instrument (China), Unitec (Italy), Sesotec (Germany), National Recovery Technologies (US), CP Global (US), Machinex (Canada), MAF RODA AGROBOTIC (France), NEWTEC (Denmark), Raytec Vision (Italy), Cimbria (Denmark),

Daewon GSI (South Korea), Angelon (China), REDWAVE (Austria), and Elica ASM s.r.l. (Italy).

Research Coverage:

The report describes the detailed information regarding the major factors such as drivers, restraints, challenges, and opportunities influencing the growth of the optical sorter market. It also includes technology trends, trade data, and patent analysis. This research report categorizes the optical sorter market based on type, connectivity, application, end user, and region. A detailed analysis of the key industry players was carried out to provide insights into their business overviews; solutions and services offered; key strategies adopted that include new product launches, deals (partnerships and collaborations), and others (expansions), and COVID-19 impact on optical sorter market.

Key Benefits of Buying the Report

The report would help leaders/new entrants in this market in the following ways:

1. This report segments the optical sorter market comprehensively and provides the closest market size projection for all subsegments across different regions.
2. The report helps stakeholders understand the pulse of the market and provides them with information on key drivers, restraints, challenges, and opportunities for market growth.
3. This report would help stakeholders understand their competitors better and gain more insights to improve their position in the business. The competitive landscape section includes competitor ecosystem, product developments and launches, partnerships, and mergers and acquisitions.
4. The analysis of the top 25 companies, based on market share/rank as well as the product footprint will help stakeholders visualize the market positioning of these key players.
5. Patent analysis, trade data, and technological trends that will shape the market in the coming years has also been covered in this report.

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9.2.2.1 Optical sorters reduce the levels of foreign materials and rotten items in dried fruits & nuts

9.2.3 MEAT & SEAFOOD

9.2.3.1 Optical sorters offer contamination-free sorting of fresh or frozen meat & seafood of various sizes and types

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*Details on Business overview, Products/Solutions offered, Recent developments, MNM view might not be captured in case of unlisted companies.

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About

According to the market research report "Optical Sorter Market by Type (Camera, Laser, NIR Sorter, and Hyperspectral Camera & Combined Sorters), Platform (Belt, Freefall, Lane, and Hybrid), Application (Food, Recycling, and Mining), and Geography - Global Forecast to 2023", the optical sorter market, the overall market is estimated to be worth USD 1.63 Billion in 2017 and is expected to reach USD 2.87 Billion by 2023, at a CAGR of 9.8% between 2017 and 2023. The increasing need to reduce process and delivery time in the food industry and rising labor costs are the major drivers for the optical sorter market growth.

Major players in the optical sorter market are

TOMRA (Norway)

Buhler (Switzerland)

Key Technology (US)

Binder (Austria)

Satake (US)

Allgaier Werke (Germany)

Cimbria (Denmark)

CP Manufacturing (US)

GREEFA (Netherlands)

NEWTEC (Denmark)

National Recovery Technologies (US)

Pellenc ST (France)

Raytec Vision (Italy)

Sesotec (Germany)

STEINERT (Germany)

Camera-based optical sorters are expected to hold a major share during the forecast period

Camera-based optical sorters led the optical sorter market in 2016. These sorters are more accurate and can detect minute defects in products; therefore, these optical sorters are widely used in food applications to sort vegetables and fruits; dried fruits and nuts; and cereals, grains, and pulses. With technological advancements (Automation), many companies are now providing camera-based optical sorting equipment integrated with intelligent software. These technologically advanced products are more effective in detecting defective products, which improves the overall product quality and increases yield.

Belt platform-based optical sorters are expected to grow at the highest CAGR between 2017 and 2023

Belt platform-based optical sorters are used in various applications, such as food, recycling, and mining. Belt sorting equipment has high-performance capabilities for fresh, frozen, and dried vegetables; fruits; processed potato products; and nuts. Belt platform-based optical sorters identify small foreign materials and defects and improve the accuracy of the ejection system, which helps in maximizing the sorter's yield and defect removal performance.

North America is expected to hold a major share of the optical sorter market between 2017 and 2023

North America is expected to hold the largest share of the optical sorter market during the forecast period. The US is expected to be the major contributor to the market in North America between 2017 and 2023. This is due to the high demand for optical sorters in the food industry. Automated sorting is an important technology for many food-processing operations. The US has been an early adopter of the automation technology as a means of improving productivity and ensuring time and cost savings. In addition, consumer demands for healthier options and convenience have also affected the food industry and driven the use of automation, which in turn has aided the adoption of

optical sorting equipment.

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