

# Optical Sorter Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025 - 2034

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## Abstracts

The Global Optical Sorter Market was valued at USD 2.4 billion in 2024 and is estimated to grow at a CAGR of 4.9% to reach USD 3.9 billion by 2034.

The accelerating demand for automated sorting solutions, especially in fast-growing economies, is driven by a booming packaged goods sector. As consumption of processed food surges, manufacturers are under mounting pressure to meet hygiene, safety, and quality standards. With rising global population projections, organizations now face intense pressure to scale food production efficiently, placing optical sorting at the forefront of innovation and compliance. These systems are no longer an optional upgrade—they're a necessity in high-output facilities where manual inspection fails to meet demand.

Optical sorting technology enables high-speed, contactless detection and removal of defective products, contaminants, and non-conforming items. These solutions support rigorous food safety regulations while increasing operational throughput. Evolving sustainability goals are also influencing growth, as optical sorters play a key role in circular economy efforts, including waste reduction and resource recovery. Advanced machines now integrate near-infrared, hyperspectral sensors, X-ray vision, and AI-powered imaging to accurately sort materials by structure, shape, color, and chemical composition. These innovations are reinforcing their relevance across a diverse range of industries—from food to recycling to pharmaceuticals.

The camera-based sorters generated USD 870.5 million in 2024 and are projected to grow at a CAGR of 4.6% through 2034. This segment is expanding rapidly due to its cost-efficiency, ease of integration, and technological flexibility. Using RGB and monochrome cameras at high frame rates, these systems can detect minute variations

in product features. Their ability to process everything from fresh produce to industrial parts makes them highly adaptable. Recent improvements in resolution, edge computing, and onboard AI are sharpening detection rates, improving real-time accuracy, and minimizing false rejects.

The food & beverage industry segment held a 60.1% share in 2024 and is forecast to grow at a CAGR of 4.7% between 2025 and 2034. Rising consumer expectations for quality, cleanliness, and transparency are pushing processors to invest in high-efficiency optical sorters. Increasing scrutiny from regulatory bodies, combined with consumer demands for food safety and traceability, has made these systems essential. Real-time defect detection and precision removal help producers maintain consistent product quality, minimize recalls, and build brand trust.

United States Optical Sorter Market was valued at USD 569.6 million in 2024 and is expected to grow at a CAGR of 5.2% through 2034. Strong growth in food processing, recycling, and pharmaceutical manufacturing is driving this expansion. High regulatory standards from agencies require technologies to deliver top-tier hygiene, precision, and traceability. Growing awareness of sustainability, waste reduction, and automation is accelerating the demand for cutting-edge sorting equipment across the country's industrial sectors.

Key companies shaping the Global Optical Sorter Market include Böhler, Raytec Vision, TOMRA, STEINERT, SATAKE, Allgaier, CP Manufacturing, Cimbria Heid, Angelon, SORTEX, Pellenc ST, GREEFA, NEWTEC, Sesotec, and NRT (National Recovery Technologies). Leading players in the optical sorter market are investing heavily in AI-driven technologies and smart sensors to boost sorting accuracy and reduce processing errors. Many are integrating hyperspectral imaging and deep learning algorithms to handle complex sorting needs across various materials. Companies are expanding their portfolios to offer multi-application systems that cater to both food and non-food sectors. Collaborations with automation providers help streamline plant operations and enhance machine interoperability. Key firms are also scaling their presence in high-growth regions through joint ventures and service partnerships.

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