

# **Potato Chip Optical Sorting Machine Market Forecasts to 2034 – Global Analysis By Type (Camera-Based Machines, Laser-Based Machines, Pneumatic Ejection System Machines and Other Types), By Technology (Sensor Fusion, Artificial Intelligence (AI) and Other Technologies) and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global Potato Chip Optical Sorting Machine Market is accounted for \$256.1 million in 2026 and is expected to reach \$470.5 million by 2034 growing at a CAGR of 7.9% during the forecast period. A potato chip optical sorting machine is an advanced piece of equipment employed in the food processing industry to rigorously inspect and segregate potato chips based on their visual characteristics. It automates the sorting process, identifying and segregating imperfect chips and ensuring high-quality, uniform products for packaging. This machine plays a pivotal role in enhancing efficiency, meeting industry standards and delivering consistent, visually appealing potato chip products in the food processing industry.

According to U.S. Census Bureau, the food service and retail sales in April 2022 were \$677.7 billion and there were 279,611 retail businesses in the U.S. in 2022.

Market Dynamics:

Driver:

Rising demand for high-quality potato chips

As consumers become more discerning and demand higher-quality potato chips, food

manufacturers are turning to optical sorting machines to ensure consistent quality and eliminate defects. These machines employ sophisticated optical sensors to identify and remove undesirable elements like green potatoes, blemishes, and foreign objects, resulting in a superior product that meets consumer expectations. This growing demand for premium potato chips is fueling the expansion of the potato chip optical sorting machine market.

#### Restraint:

##### High initial investment

The high upfront cost of optical sorting machines poses a significant barrier to entry for small and medium-sized potato chip manufacturers. This substantial investment can strain their financial resources and limit their ability to adopt advanced sorting technology. As a result, many SMEs continue to rely on manual sorting methods, which are less efficient and consistent.

#### Opportunity:

##### Increasing adoption of automation in the food industry

The automation trend in the food industry presents a significant opportunity for the potato chip optical sorting machine market. Food manufacturers are embracing automation to enhance efficiency, reduce costs and improve product quality. The demand for optical sorting machines is projected to surge. These machines offer a precise and automated solution for sorting potatoes, ensuring consistent quality while minimizing waste. With the growing emphasis on automation, potato chip optical sorting machines are poised to play a crucial role in the evolving food processing landscape.

#### Threat:

##### Lack of awareness

A lack of awareness of the benefits of optical sorting machines among small and medium-sized enterprises (SMEs) poses a significant threat to the growth of the potato chip optical sorting machine market. SMEs may not be aware of the potential cost savings and quality improvements that these machines can offer, leading them to forego this valuable technology. This lack of awareness can hinder the adoption of optical sorting machines and limit the overall market growth.

### Covid-19 Impact:

The COVID-19 pandemic initially posed challenges to the potato chip optical sorting machine market due to supply chain disruptions and reduced demand from the foodservice industry. However, the pandemic also led to increased demand for home food preparation, driving sales of potato chips and indirectly benefiting the sorting machine market. As the pandemic wanes and the foodservice industry recovers, the demand for optical sorting machines is expected to rebound, driven by the continued focus on food safety and quality.

The camera-based machines segment is expected to be the largest during the forecast period

Camera-based machines are expected to dominate the potato chip optical sorting machine market due to their superior accuracy, efficiency, and versatility. These machines utilize advanced image processing algorithms to detect and remove defects, ensuring high-quality potato chips reach consumers. Their ability to handle a wide range of potato chip varieties and shapes further strengthens their position in the market.

The artificial intelligence (AI) segment is expected to have the highest CAGR during the forecast period

The artificial intelligence (AI) segment is poised to witness the fastest growth in the potato chip optical sorting machine market due to its transformative impact on sorting accuracy, efficiency, and data-driven insights. AI-powered algorithms enable these machines to learn and adapt to variations in potato chips, consistently identifying and removing defects with exceptional precision. Moreover, AI facilitates real-time monitoring and analysis of sorting processes, providing valuable insights to optimize performance and improve product quality. As AI technology continues to advance, its integration into potato chip optical sorting machines is expected to accelerate, driving significant growth in the AI segment.

### Region with largest share:

North America is poised to witness the largest share in the potato chip optical sorting machine market owing to the region's strong presence in the potato chip industry, coupled with rising consumer demand for high-quality and defect-free potato chips. Additionally, growing concerns over food safety and the need for consistent product

quality are further fueling the demand for optical sorting machines in North America. Moreover, the region's well-established infrastructure for potato chip production and distribution, along with favorable government regulations and initiatives promoting food safety, is also contributing to the growth of the potato chip optical sorting machine market in North America.

Region with highest CAGR:

Asia Pacific is poised for substantial growth in the potato chip optical sorting machine market, driven by the region's burgeoning potato chip consumption, rising consumer demand for high-quality snacks and increasing automation in the food processing industry. Additionally, the growing presence of multinational food brands and the expansion of organized retail chains further fuel the demand for advanced sorting technologies like optical sorting machines in the region.

Key players in the market

Some of the key players in Potato Chip Optical Sorting Machine Market include Aweta BV, Buhler Group, Cimbria, FAM Stumabo USA, Inc, Greefa, Key Technology, Inc, Metak Color Sorter Machinery Limited, Raytec Vision S.p.A., Reemoon Technology Holdings Co., Ltd, Satake USA, Inc., Sesotec GmbH, Tianjin Hefu Engineering Co., Ltd., TOMRA Sorting Solutions and Unitec Group.

Key Developments:

In October 2023, TOMRA Food, a leader in cutting-edge sorting solutions, is set to unveil its latest technologies for fresh pack potatoes at the upcoming IFPA's Global Produce & Floral Show. The event, scheduled from 19-21 October in Anaheim, California will see the TOMRA team stationed at Booth 3304, ready to demonstrate how their state-of-the-art sorting solutions can revolutionize the efficiency of potato sorting lines.

In August 2023, Key Technology has introduced the COMPASS family of food optical sorters. Powered by inspection technology as well as a new sort engine and ergonomic user interface, COMPASS is intended to be an easy-to-use optical sorter, achieving accurate foreign material (FM) and product defect removal and simplifying system operation, sanitation and maintenance. COMPASS is designed to help processors automate and improve quality management of their food products, while maximizing yield and increasing profitability.

In June 2023, Bizz Corporation enters the French Fry market in India with its Chillfill brand, invests heavily in TOMRA line solutions.

#### Types Covered:

Camera-Based Machines

Laser-Based Machines

Pneumatic Ejection System Machines

Conveyor and Handling System Machines

Other Types

#### Technologies Covered:

Sensor Fusion

Artificial Intelligence (AI)

Near-Infrared (NIR) Spectroscopy

X-ray

Other Technologies

#### Regions Covered:

North America

US

Canada

Mexico

## Europe

Germany

UK

Italy

France

Spain

Rest of Europe

## Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

## South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

Market share assessments for the regional and country-level segments

Strategic recommendations for the new entrants

Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034

Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

Strategic recommendations in key business segments based on the market estimations

Competitive landscaping mapping the key common trends

Company profiling with detailed strategies, financials, and recent developments

Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

#### Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

#### Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

#### Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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