

New AI-Based Inspection System Brings Profitability to Potato Processors

2024-09-11

The SiftAI® Smart Table from Smart Vision Works, a KPM Analytics Brand, promises better contaminant detection and product grading.

WESTBOROUGH, Mass., Sept. 11, 2024 /CNW/ -- Food processors know that foreign objects and inaccurate quality grading is cutting into profits. To fix this, they have tried X-ray detection, metal detection, vision inspection systems, and large teams of human inspectors, yet success has been limited. A new AI-based vision inspection system from Smart Vision Works, a KPM Analytics brand, is designed to solve these long-standing problems.

The SiftAI® Smart Table is trained with artificial intelligence (AI) to automatically detect and remove foreign objects and sort products in a single pass. Unlike competing vision inspection systems, the new system uses advanced AI that is more accurate, allowing companies to inspect products and remove foreign materials at higher throughputs than ever before. Beta customers report higher produce profit, fewer missed contaminants, and dramatically lower labor costs.

The system includes cameras, AI software, a conveyor, and automatic ejection mechanisms with dual drops (one for foreign material, one for culls) to ensure only ideal potatoes reach later process stages. **Watch a video to see the system in action.**

Improve Profitability

The SiftAI Smart Table vision inspection system is competitively priced. Company managers can justify the investment by reallocating inspection workers to higher skill areas. Wages have risen sharply in recent years, so

company managers will value the opportunity to shift workers away from low-skill activities.

In addition, the system helps processors avoid customer fines for contaminants. For some processors, these fines may cost \$50,000 per incident and total hundreds of thousands of dollars per year.

Because of the speed of the advanced AI technology, conveyor speeds can be increased, giving operators more throughput per shift.

Best of all, the system precisely grades produce using sophisticated evaluation of bruises, rot, and green. According to Christopher Bryant, President of the Smart Vision Works AI Division within KPM Analytics, "we estimate that up to 20% of potatoes are typically diverted to the wrong value stream, reducing profitability and causing customer satisfaction issues." A more accurate sorting system diverts less produce to less profitable uses, and higher quality produce can command a higher price.

All Potato Growers and Processors Will Benefit

The AI-driven system addresses specific business and operational challenges potato processors face each day.

- Chip potatoes: Avoid penalties (charge backs) by immediately eliminating foreign materials from the process stream.
- Process potatoes: Also eliminate foreign materials while reliably sorting potatoes based on size, defect presence, and more.
- Fresh pack potatoes: Pre-sort to reduce potato volume through the facility, minimize foreign material risk, and deliver only the best potatoes to customers.

Advanced AI Technology

The improvements are possible because the system's technology is not like the basic AI commonly used by other vision inspection systems. Instead, the system uses AI built on 12 years of development by AI scientists and a decade of experience in food sorting applications. Unlike competitors that use optical scanners, the system takes a full digital image and runs it through a neural network. Users receive detailed data for analysis.

Availability

The SiftAI Smart Table system is available for order now with a 14-16-week lead time. Contact the factory for lead times on custom configurations having more tilt trays or other features.

About KPM Analytics

KPM Analytics is a global leader in scientific instrumentation, focused primarily on analyzing critical parameters within the food, feed, agriculture, and environmental sectors. We provide a comprehensive range of products and services to uniquely solve our customers' problems. Our product brands are AMS Alliance, Bruins Instruments, CHOPIN Technologies, EyePro System, Process Sensors Corporation, Sensortech, Sightline Process Control, Smart Vision Works, and Unity Scientific. Each has a long history of delivering advanced and reliable analysis solutions to ensure product quality and optimize process efficiency, with customer service at the center of everything we do. Visit <https://www.kpmanalytics.com> to learn more.

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