

NRT Launches Color-based Optical Sorter with Artificial Intelligence

The NRT ColorPlus™ with Max-AI® combines the advantages of high-resolution color and AI technologies

Nashville, Tenn. – July 8, 2020 – The NRT ColorPlus™ with [Max-AI®](#) from [National Recovery Technologies \(NRT\)](#) integrates artificial intelligence (AI) into the company's successful ColorPlus sorter. The additional layer of intelligence creates new sorting capabilities by combining the ColorPlus sorter's high volume and high confidence capabilities with Max's person-like identification decisions.

The ColorPlus sorter employs a high-resolution RGB color line-scan sensor to identify and sort recyclables by color. Max-AI technology employs a camera and deep learning based AI to identify recyclables similar to the way a person does. Max-AI technology, launched by NRT parent company [Bulk Handling Systems \(BHS\)](#) in 2017, is already at work in more than 100 installations, making it recycling's leading AI. While most of these installations use the technology in collaboration with robotic sorters, the Max-AI VIS (Visual Identification System) is also installed as stand-alone equipment and has already been integrated into the [NRT SpyDIR® with Max-AI®](#).



“From the beginning we realized Max was a game changer, not just for robotic sorters, but really for the industry on a system-wide level,” said BHS CEO Steve Miller. “This is another step forward as we continue to integrate Max into more of our equipment and intelligent system controls. NRT optical sorters are the best in the world at identifying material at very high confidence levels by color or material composition, but sometimes the most effective sort requires the type of characterization that a person can make – that’s where Max comes in. Cardboard isn’t always brown and a clear PET container isn’t always desired in the end product. The ColorPlus with Max-AI is going to solve a lot of sorting challenges for our customers and we are thrilled to introduce it to them,” Miller concluded.

The first ColorPlus with Max-AI is installed in a European paper recycling facility to purify the fiber stream by removing non-paper fiber. In this case, Max-AI technology identifies material by type (ex., pizza box, cereal box, OCC, craft board, book, etc.). The ColorPlus™ technology is tuned to aggressively detect brown fiber. The combination of proven color detection and the added layer of AI ensures the ultimate removal of non-spec fiber. The technology has the flexibility to change what material types are targeted, allowing the customer to adjust along with market and material fluctuations.

Video Link:

<https://youtu.be/fRMnGCyyOkM>

Video Embed:

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<iframe width="560" height="315" src="https://www.youtube.com/embed/fRMnGCyyOkM" frameborder="0" allow="accelerometer; autoplay; encrypted-media; gyroscope; picture-in-picture" allowfullscreen></iframe>
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National Recovery Technologies (NRT)

Headquartered in Nashville, Tennessee, NRT is a global leader in the design, manufacture and installation of optical sorting solutions. NRT is a member of the Bulk Handling Systems (BHS) Family of Companies, a worldwide leading provider of automated sorting systems to the waste processing and recycling industries. In Europe, NRT operations are headquartered in Amsterdam. Since its inception in 1981, NRT has been recognized as an industry thought-leader and innovator, and currently holds more than 35 U.S. and international patents. Today, NRT remains focused on technology innovation and offers industry-leading bottle sorting recovery and purity rates, thanks in part to In-Flight Sorting® and PET Boost® technologies. NRT holds strong commitments to equipment excellence and first-class customer service and support.

Bulk Handling Systems (BHS)

Headquartered in Eugene, OR, BHS is a worldwide leader in the innovative design, engineering, manufacturing and installation of sorting systems and components for the solid waste, recycling, waste-to-energy, and construction and demolition industries. Wholly-owned subsidiaries include Nihot (Amsterdam), NRT (Nashville, TN) and Zero Waste Energy (SF Bay, CA). BHS is also the home of Max-AI® technology, a breakthrough artificial intelligence that identifies materials, makes intelligent decisions and directs equipment such as robotic sorters. Clients around the globe choose BHS because of its experience, dedication to cutting-edge technology, quality construction and durability, and unmatched customer service. BHS has built some of the largest and most durable MRFs in the world – and they are achieving the highest throughput, recovery, and purity rates in the industry.

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