OPTICAL SORTING IN HIGH-DEFINITION

PLASTICS
E-SCRAP
PAPER
METALS
GLASS
MSW/C&D/RDF

MagSep.com
ULTIMATE SEPARATION EFFICIENCY FOR YOUR OPERATION
Increase system capacity. Improve your bottom line. Recover the highest quality commodities. Reduce manual labor. Increase worker safety.

OVER 40 YEARS OF EXPERIENCE IN SENSOR-BASED SORTING
Our sensor-based sorting systems are field-proven and give you the most efficient separation. No matter how complex the application, MSS systems are the answer to your requirements, for large and small particle sizes.

RESEARCH AND DEVELOPMENT
Developing our own sensor hardware and software in house and from the ground up, with total control over the product, is at the heart of what MSS stands for – we do it all.

SERVICE AND SUPPORT
When you purchase MSS equipment not only do you receive a reliable optical sorter but also continuous after-sale service and technical support that includes life-time free phone and remote access support.

MSS, A DIVISION OF THE CP GROUP
For over 10 years, MSS Inc. has been a division of the CP Group, which combines the experience, expertise and capabilities of MSS, CP Manufacturing, Krause Manufacturing, IPS Baters and Advanced MRF. We provide practical, complete turnkey system solutions.

OPTICAL SORTING APPLICATIONS

PLASTICS
Separation of plastics by any color and resin type (clear vs. light-blue PET, PE, PVC, HDPE, PP, PS, PLA, PET-G, etc.).

E-SCRAP
Sorting of shredded electronic scrap (WEED) by material type (ABS, HIPS, PC, PMMA, PC-ABS), color (PCB) and shape (copper wires).

PAPER
Sorting of different paper grades (ONP, mixed paper, OCC, white ledger, cardboard, etc.) as well as removing non-fiber contaminants.

METALS
Recovering ferrous, non-ferrous and stainless from pre-shredded metal scrap and auto shredder residue as well as further separation of Zorba and Zurich fractions.

GLASS
Removing non-glass contaminants such as ceramics and metals as well as sorting of mixed glass by color (fliint, green, amber, blue).

RDF
Separation of contaminants such as PVC or metals from mixed waste streams and generation of BTU-specific RDF fuels.

C&D, BIOMASS
Sorting of wood, plastics, fiber, drywall and metals from pre-processed C&D and biomass streams.

MSW, C&I
Extraction of specific plastic, paper and metal commodities from dirty feedstock.
The CIRRUS™ combines high-resolution Near-Infrared, color, and metal sorting. It allows you to sort a wide variety of mixed materials, using advanced digital signal processing and software algorithms.

The exact setup is tailored to the specific sorting application. Our detection in mid-air provides higher signal levels for transparent items (PET color sorting) and allows sorting of black items.

FEATURES
- Detection options
  - Over-the-belt
  - In flight with reflective reference
  - In flight over illuminated reference
- Single-eject or dual-eject setup
- Color touchscreen
- Ethernet and modem connection
- Language selection
- Change recipes by the touch of a button

MACHINE SPECIFICATIONS
- Machine width: 800 - 2,400mm
- Capacity E-scrap*: 1.5 - 3.0 tons/hr
- Capacity paper*: 2.0 - 12.0 tons/hr
- Capacity plastics*: 2.0 - 8.0 tons/hr
- Efficiency*: Up to 98%
- Electricity: 8 - 12 kW
- Compressed air: 100 psi / 7 bar

UPGRADES
- All-metal detector
- Split configuration
- Statistics and quality control reports
- High-speed paper handling system (6m/sec or 1,200fpm)

APPLICATIONS
- Plastic Bottles
- Plastic Flake
- Paper + Cardboard
- Beverage Cartons
- Electronic Scrap
- Metal Scrap
- MSW/RDF/C&I
- C&D

MACHINE SPECIFICATIONS
- Machine width: 800 - 2,400mm
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- Capacity paper*: 2.0 - 12.0 tons/hr
- Capacity plastics*: 2.0 - 8.0 tons/hr
- Efficiency*: Up to 98%
- Electricity: 8 - 12 kW
- Compressed air: 100 psi / 7 bar

* Disclaimer: Actual throughput and performance depends on a number of factors including, but not limited to, input material composition, particle size, bulk density and % of targeted materials.
The L-VIS™ is our latest high-resolution color camera sorting system. It provides accurate color and shape separation of small particles.

The exact sensor setup (detection in mid-air over a reflective or an illuminated back reference) and mechanical configuration (slide vs conveyor) are tailored to the specific processing application.

FEATURES
- Detection options:
  - Over-the-belt
  - In-flight with reflective reference
  - In-flight over illuminated reference
- Single-eject setup
- Color touchscreen
- Ethernet and modem connection
- Language selection
- Change recipes by the touch of a button

MACHINE SPECIFICATIONS
- Machine width: 800 - 1600mm
- Capacity E-scrap*: 0.5 - 3.0 tons/hr
- Capacity metal scrap*: 2.5 - 8.0 tons/hr
- Capacity plastic flake*: 1.0 - 2.5 tons/hr
- Efficiency*: Up to 98%
- Electricity: 5 - 8kW
- Compressed air: 100 psi / 7 bar

APPLICATIONS
- Electronic Scrap
- Plastic Flake + Pellets
- Metal Scrap
- Glass
- Other Small Particle Applications

UPGRADES
- All-metal detector
- Split configuration
- Statistics and quality control reports

L-VIS™ HIGH-RESOLUTION COLOR SORTING SYSTEM FOR SMALL PARTICLES
ALADDIN™

The Aladdin™ sorts plastic bottles in MRFs and recycling facilities by plastic resin and color. It generates up to three outputs from one input.

By performing the identification in flight, the Aladdin™ can separate opaque from transparent objects and provides double signal intensity for transparent objects (light-blue PET, PVC/PET).

OPTICAL SORTING OF PLASTICS BY RESIN TYPE AND COLOR

FEATURES
- In flight detection for over 15 years!
- Single-eject or dual-eject setup
- Color touchscreen
- Ethernet or modem connection
- Language selection
- Change recipes by the touch of a button

MACHINE SPECIFICATIONS
- Machine width
- Capacity plastic bottles
- Efficiency
- Electricity
- Compressed air

1600, 2000mm
4.0 - 6.0 tons/hr
Up to 98%
8 - 10kW
100 psi / 7 bar

APPLICATIONS
- Material Recovery Facilities
- Plastic Recycling

SAPPHIRE™

The Sapphire™ is a sophisticated NIR sensor sorting system that is capable of identifying polymer resins as well as other materials (shrink collars, paper, etc.).

This advanced optical sorter provides MRFs and recyclers an affordable solution for optical separation of packaging materials.

HIGHLY FLEXIBLE NIR SENSOR SORTING SYSTEM

FEATURES
- Single-eject or dual-eject setup
- Color touchscreen
- Ethernet or modem connection
- Language selection
- Change recipes by the touch of a button

MACHINE SPECIFICATIONS
- Machine width
- Capacity plastic bottles
- Efficiency
- Electricity
- Compressed air

800 - 2000mm
1.5 - 6.0 tons/hr
Up to 98%
6 - 10kW
100 psi / 7 bar

APPLICATIONS
- Material Recovery Facilities
- Plastic Recycling

UPGRADES
- All-metal detector
- Split configuration
- Statistics and quality control reports

UPGRADES
- All-metal detector
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METALSORT™
The MetalSort™ is an induction-based true all-metal sensor that sorts ferrous, non-ferrous, and stainless steel. Particles down to 1mm in size can be separated.

We build it as a stand-alone unit or as an upgrade to any of MSS’ optical sorters. It can be configured in a conveyor or slide setup. The sensor resolution is tailored to the specific processing application.

OPTICAL SORTING FOR FERROUS, STAINLESS STEEL & NON-FERROUS

FEATURES
• Color touchscreen
• Ethernet or modem connection
• Language selection
• Recipe selection

MACHINE SPECIFICATIONS
• Machine width
  800 - 2,400mm
• Capacity E-scrap*
  0.5 - 3.0 tons/hr
• Capacity metal scrap*
  2.5 - 8.0 tons/hr
• Capacity plastic flake*
  7.0 - 2.5 tons/hr
• Capacity glass cullet*
  10 - 30 tons/hr
• Efficiency
  Up to 98%
• Electricity
  5 - 8kW
• Compressed air
  100 psi / 7 bar

APPLICATIONS
• Upgrade to MSS’ Optical Sorters
• Plastic Bottles + Flakes
• Electronic Scrap
• Metal Scrap
• Glass

UPGRADES
• Split configuration
• Statistics and quality control reports

OPTICAL SORTING FOR COLORS, CERAMICS & METALS

The Glass ColorSort™ separates opaque contaminants such as ceramics, stones and porcelain (CSP) from the mixed glass and sorts it by color such as flint, green, and amber.

Sophisticated software algorithms correct for the effects of dirt and other contamination. Automatic velocity detectors compensate for any moisture effects in the infeed material.

COLORSORT™

FEATURES
• Single-eject and dual-eject configurations
• Color touchscreen
• Ethernet or modem connection
• Language selection
• Change recipes by the touch of a button

MACHINE SPECIFICATIONS
• Machine width
  1000 + 1500mm
• Capacity ceramics*
  15.0 - 22.5 tons/hr
• Capacity colors*
  5.0 - 7.5 tons/hr
• Efficiency*
  Up to 98%
• Electricity
  2 - 3kW
• Compressed air
  100 psi / 7 bar

APPLICATIONS
• Glass Color Sorting
• Ceramics Sorting

UPGRADES
• All-metal detector
• Split configuration
• Statistics and quality control reports

APPLICATONS
• Glass Color Sorting
• Ceramics Sorting

METALS
• Glass
• Metals

CERAMICS
• Ceramics

COLORS
• Colors