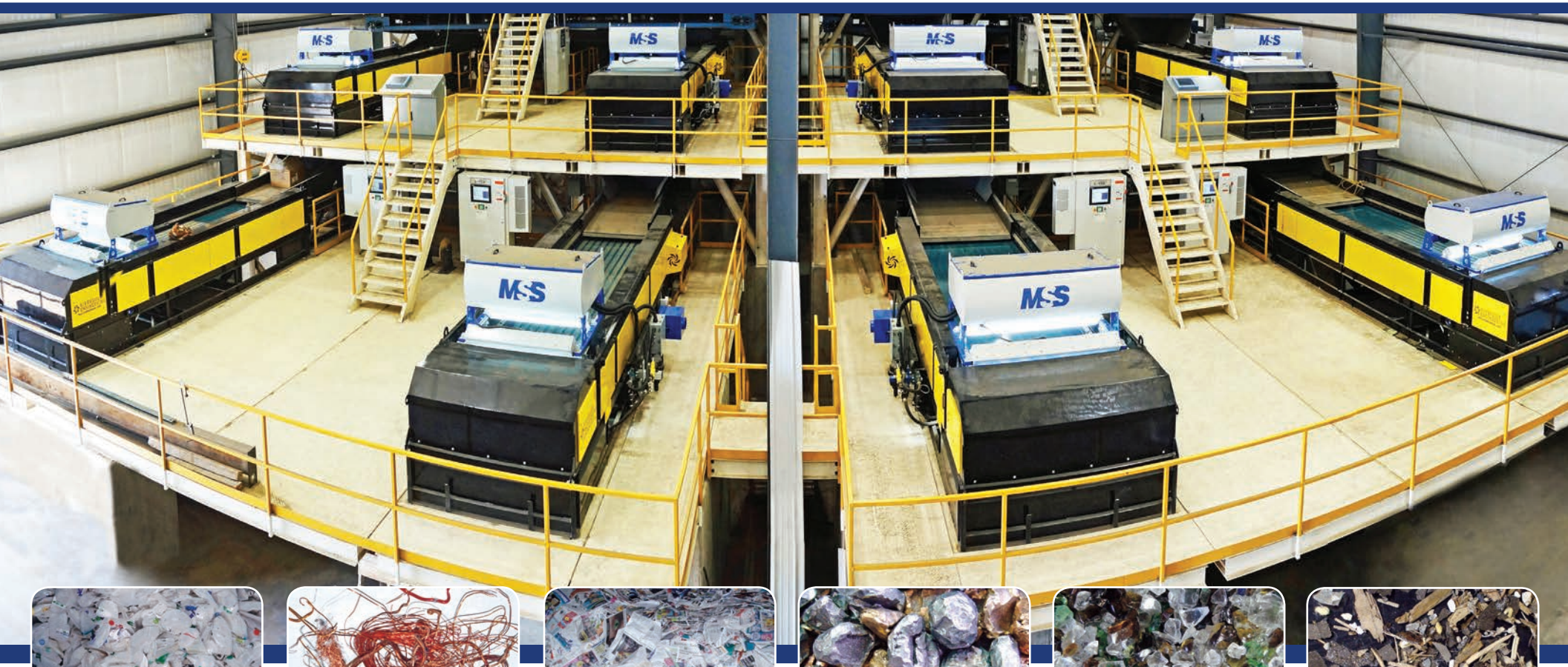
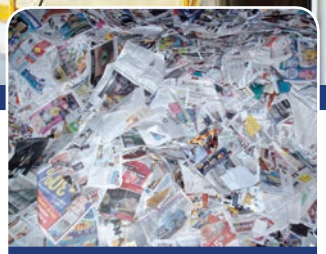
MSS OPTICAL SORTING IN HIGH-DEFINITION



PLASTICS

E-SCRAP


PAPER

METALS

GLASS

MSW/C&D/RDF

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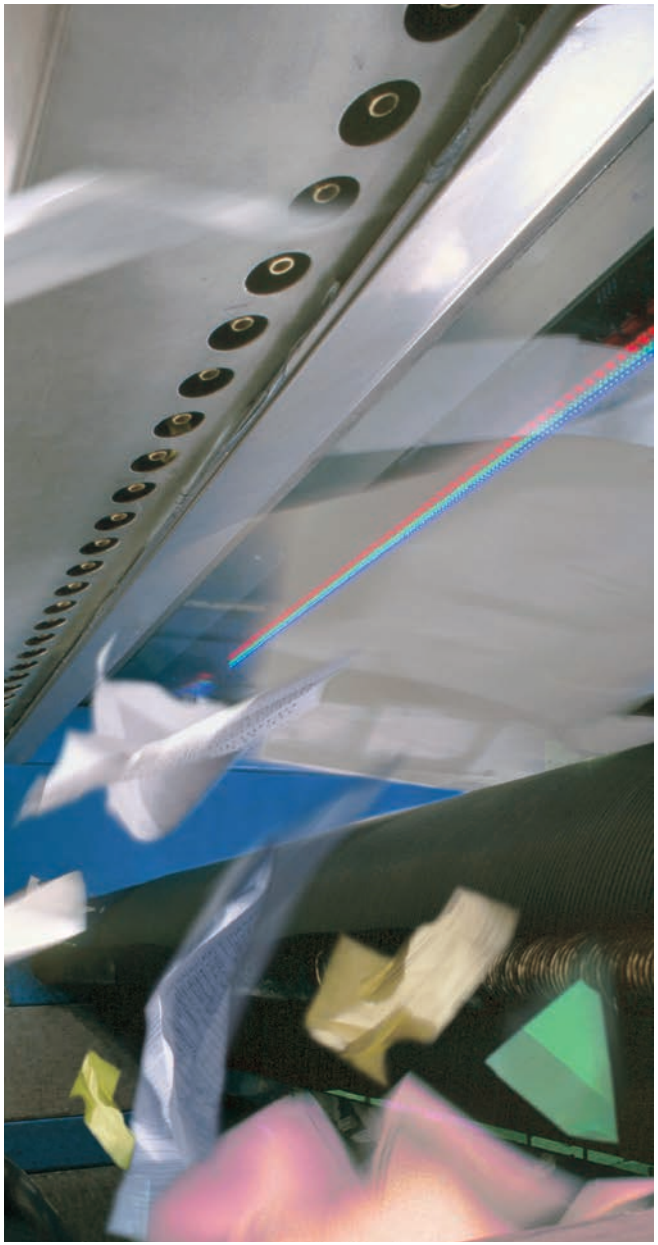
AUTOMATION REDEFINED



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, 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 (WEEE) 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 (flint, 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.

CIRRUS™

HIGH-RESOLUTION SORTING SYSTEM FOR NIR, COLOR & METAL

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 in flight detection over an illuminated reference provides higher signal levels for transparent items such as sorting PET by color in plastics recycling facilities or separating PMMA from shredded flat panels in an E-scrap plant. Furthermore, it allows us to positively identify and sort out 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 connection
- Language selection
- Change recipes by the touch of a button

MACHINE SPECIFICATIONS

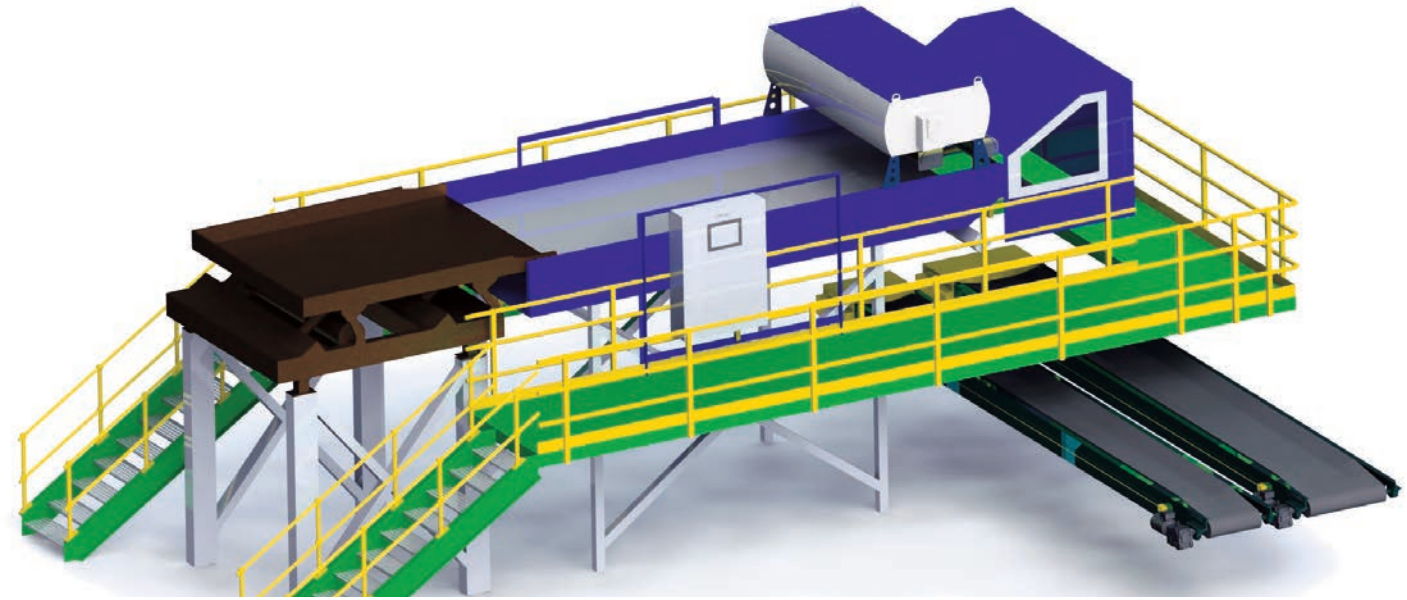
• Machine width	800 - 2,400mm
• Capacity E-scrap*	1.5 - 3.0 tons/hr
• Capacity paper*	2.0 - 12.0 ton/hr
• Capacity plastics*	2.0 - 8.0 ton/hr
• Efficiency*	Up to 98%
• Electricity	8 - 12kW
• Compressed air	100 psi / 7 bar

APPLICATIONS

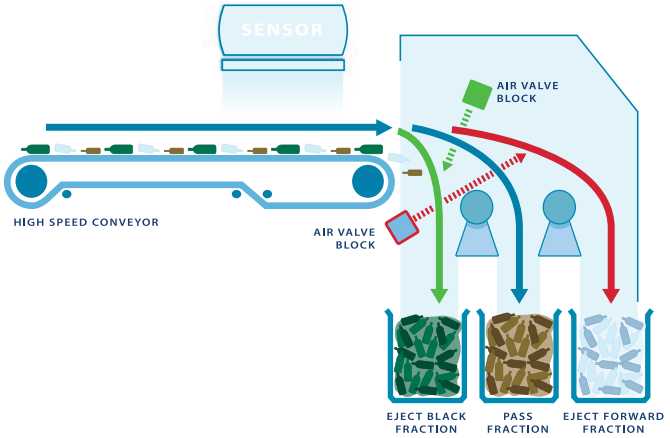
- Plastic Bottles
- Plastic Flake
- Paper + Cardboard
- Beverage Cartons
- Electronic Scrap
- Metal Scrap
- MSW/RDF/C&I
- C&D

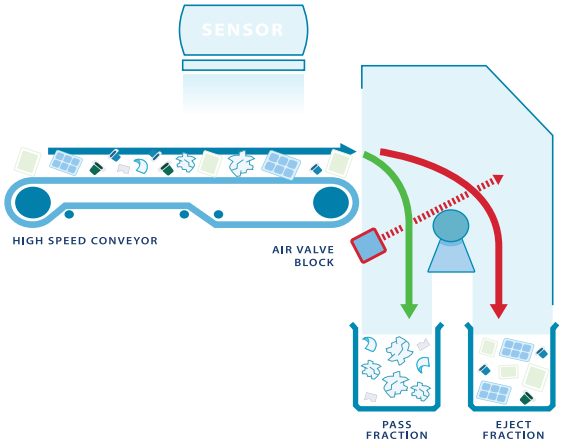
UPGRADES

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



** 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*





MIXED PLASTICS

CIRCUIT BOARDS

HDPE

PLEXIGLASS

PET

NON-FERROUS

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L-VIS™

HIGH-RESOLUTION COLOR SORTING SYSTEM FOR SMALL PARTICLES

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 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

COPPER

LEAD

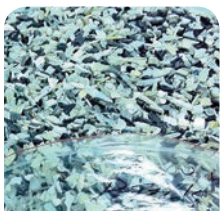
WIRES

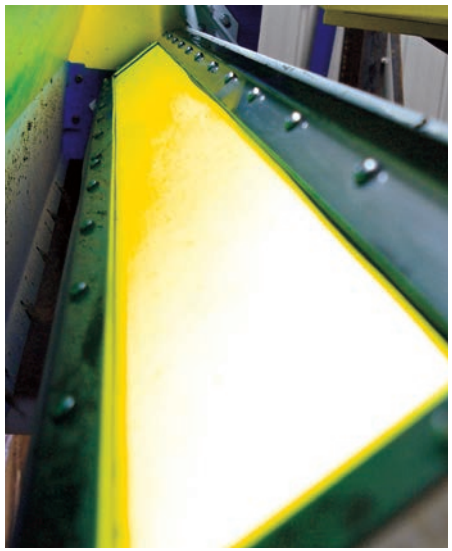
CLEAR PLASTIC

CLEAR FLAKE

COLOR FLAKE

WIRES


CLEAN PLASTIC



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ALADDIN™

OPTICAL SORTING OF PLASTICS BY RESIN TYPE AND COLOR

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).

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	1600, 2000mm
• Capacity plastic bottles*	4.0 - 6.0 tons/hr
• Efficiency*	Up to 98%
• Electricity	8 - 10kW
• Compressed air	100 psi / 7 bar

UPGRADES

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

APPLICATIONS

- Material Recovery Facilities
- Plastic Recycling

SAPPHIRE™

HIGHLY FLEXIBLE NIR SENSOR SORTING SYSTEM

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

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

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	800 - 2000mm
Capacity plastic bottles*	1.5 - 6.0 tons/hr
Efficiency*	Up to 98%
Electricity	8 - 10kW
Compressed air	100 psi / 7 bar

UPGRADES

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

APPLICATIONS

- Material Recovery Facilities
- Plastic Recycling

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METALSORT™

OPTICAL SORTING FOR FERROUS, STAINLESS STEEL & NON-FERROUS

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.

UPGRADES

- Split configuration
- Statistics and quality control reports

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*	1.0 - 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

COLORSORT™

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.

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

UPGRADES

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

APPLICATIONS

- Glass Color Sorting
- Ceramics/Opaques Sorting

METALS

COLORS

CERAMICS

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