BATTERY RECOVERY & SORTING

PREVENTING FIRES AND IMPROVING PURITY IN MATERIALS RECOVERY FACILITIES

STEINERT

MAGNETIC + SENSOR **SORTING SOLUTIONS**

BATTERY WASTE – A COSTLY HAZARD

Batteries often enter the waste stream unnoticed, creating serious risks for MRF operators and recyclers. In mixed municipal waste, batteries can spark fires, damage equipment, and cause unplanned downtime. At dedicated collection facilities, batteries require precise sorting by chemistry and material type. Both scenarios create operational inefficiencies and safety risks.

Without proper battery separation, facilities face higher insurance premiums and stricter regulatory pressure due to their high-risk classification.

// STEINERT's Unique Approach

Efficient battery sorting requires multiple technologies. STEINERT is the only provider offering magnetic and sensor-based sorting solutions from a single source, ensuring seamless integration and high sorting accuracy.

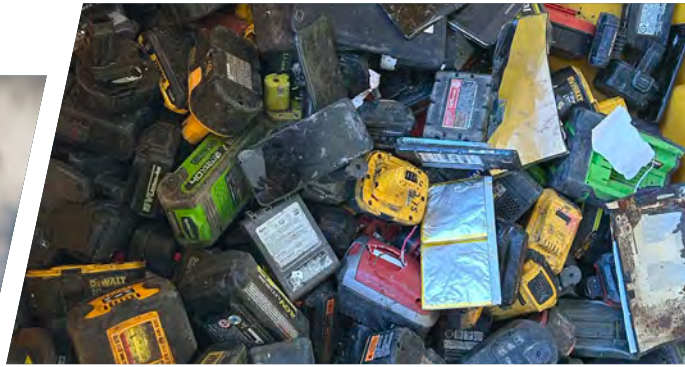
// With STEINERT, MRFs and recyclers can:

+ Detect batteries early and remove them from mixed waste.
+ Sort accurately by material and chemistry.
+ Improve safety and reduce contamination.
+ Increase recovery rates and ensure regulatory compliance.

// Two Solutions, One Expert

+ Mixed Waste Facilities: Prevent fires and contamination by removing batteries from mixed waste early.
+ Dedicated Battery Collection Sites: Precisely sort batteries by chemistry and material for safe, efficient recycling.

With decades of experience in metal separation, sensor-based sorting, and process optimization, STEINERT provides the most effective battery sorting technology for MRFs and battery recycling facilities.



BATTERY RECOVERY – REMOVING HAZARDS FROM WASTE

Removing batteries from mixed waste streams in MRFs prevents fire risks and contamination while enabling the recovery of recyclable materials.

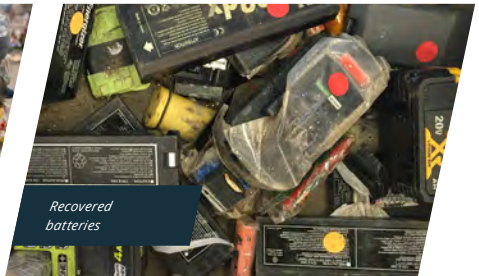
Ferrous fraction from STEINERT UME

Beverage cans from STEINERT EddyC

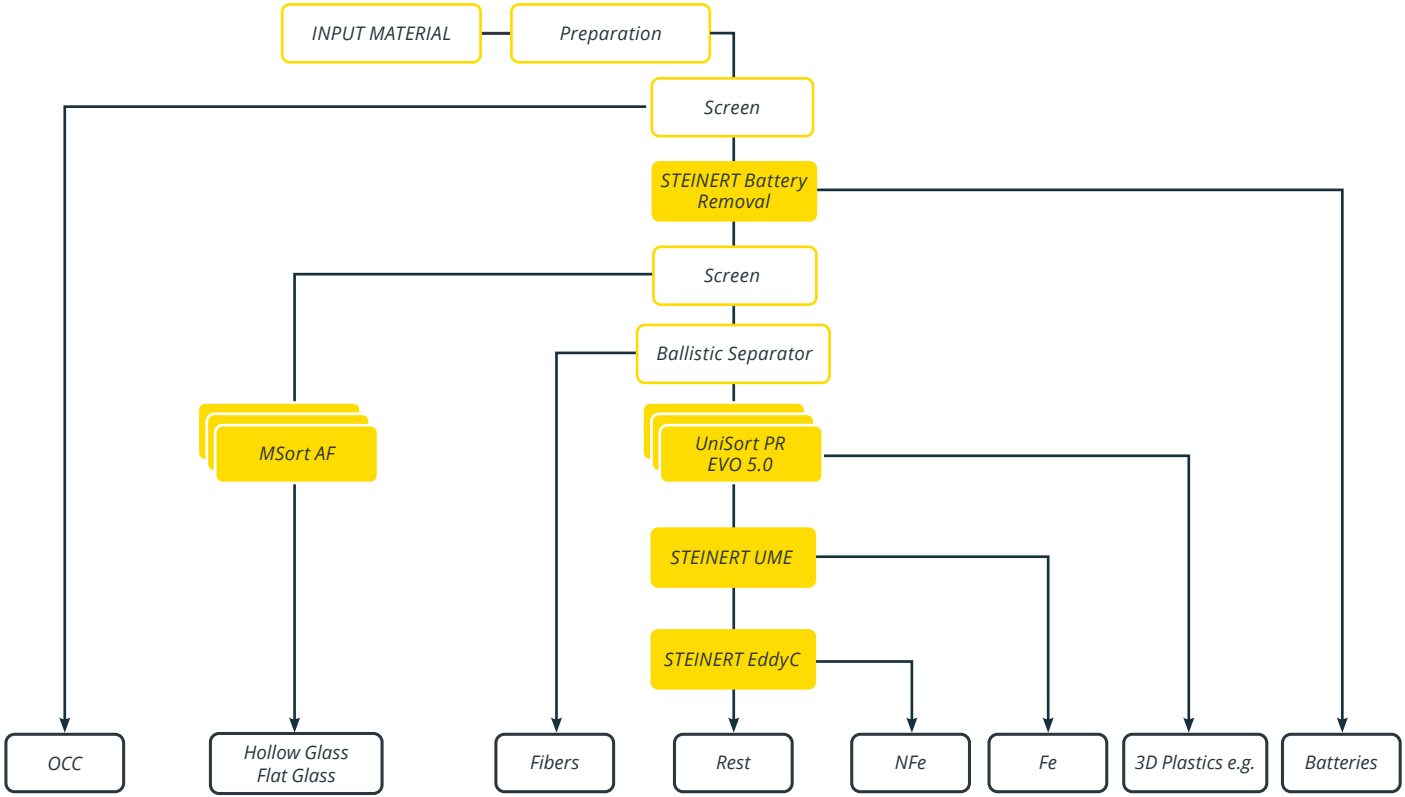
PE fraction from UniSort PR EVO 5.0

PP fraction from UniSort PR EVO 5.0

PET film fraction from UniSort PR EVO 5.0



Recovered batteries


INPUT MATERIAL
Preparation
Screen
STEINERT Battery Removal
Screen
Ballistic Separator
MSort AF
UniSort PR EVO 5.0
STEINERT UME
STEINERT EddyC
OCC
Hollow Glass Flat Glass
Fibers
Rest
NFe
Fe
3D Plastics e.g.
Batteries

BATTERY SORTING – PRECISE RECOVERY AT COLLECTION SITES

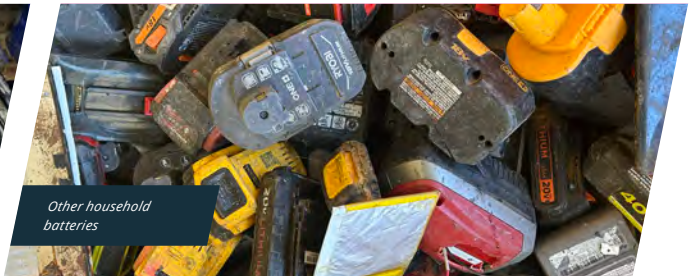
Collected batteries are sorted by chemistry and type, ensuring safe recycling and optimized materials recovery.

Alkaline and household batteries

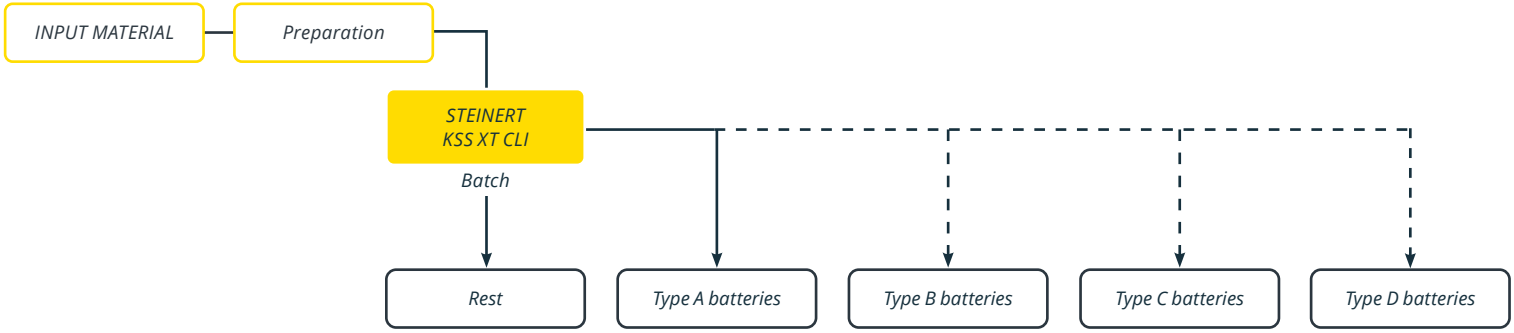
Small button cells

Pouch batteries from consumer electronics

Industrial and automotive battery modules



Other household batteries


INPUT MATERIAL
Preparation
STEINERT KSS XT CLI
Batch
Rest
Type A batteries
Type B batteries
Type C batteries
Type D batteries

OUR PRODUCTS

for efficient battery recovery and precise sorting

STEINERT UME

Self-cleaning overhead suspension magnets reliably remove coarse iron, thereby producing clean iron scrap. The overhead suspension magnet is arranged above a feeding conveyor belt and extracts the ferromagnetic materials from the supply flow against the force of gravity.

STEINERT EddyC®

The eddy current separator can be used wherever non-ferrous metals can be recovered or separated. Using eddy current technology, it produces marketable non-ferrous metal mixes containing aluminum, copper, zinc or brass.

STEINERT XSS® T EVO 5.0

The new STEINERT XSS® | EVO 5.0 is used for density-based sorting, for example, to separate aluminum from heavy metals.

UniSort PR EVO 5.0®

The UniSort PR EVO 5.0 is a sorting system that uses hyper-spectral imaging camera technology to sort various types of plastic, paper & cardboard, and wood products and allows for the sorting of black plastics using UniSort Black technology.

STEINERT KSS® | XT CLI EVO 6.0

This model is an extension of the STEINERT KSS | EVO 5.0. It has a laser for 3D detection, one color sensor, and one induction sensor. Since it's equipped with several sensors, this system optimizes sorting results for a broader range of applications.

TEST BEFORE YOU BUY:

Test your sorting material in the Test and Development Center

Benefit from skilled engineers and a combination of cutting-edge magnets, non-ferrous metal separators and sensor sorting systems in a recycling experience space.

Realistic testing can be undertaken on an industrial scale in the Test and Development Center to reproduce the demands, feasibility, and ROI of the planned investment and create investment security based on data and facts.

+ Check the feasibility, planning and layout of the system
+ Carry out sorting trials
+ Verify sorting performance in terms of quality, yield and throughput

Our application specialists from the test center and our sales team will help you solve your sorting tasks. If desired, we can directly demonstrate the potential for recovering material with STEINERT sorting technology using your own test material.

Want to try out the STEINERT test center for yourself? Simply get in touch with your personal STEINERT contact.

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