

SINCE 1982
SIZE REDUCTION TECHNOLOGY

KPS

RECYCLING & ENVIRONMENT

WASTE SECONDARY BATTERY RECYCLING SYSTEM



특허 제 10-2182290 호

INNOBIZ | MAINBIZ | ISO9001 | ISO14001 | CE | 

벤처인증기업 | 소재·부품·장비전문기업 | 인천시비전기업 | 인천시유망중소기업



Powder Technology & System Engineering

KOREA POWDER SYSTEM

KPS

ADVANCED TECHNOLOGY TOWARD THE FUTURE

한국분체기계 (주)

Exceptional Regrind Quality

Easy Maintenance & Safety

Application Flexibility

RECOVERING RAW MATERIALS BY RECYCLING BATTERIES

New Process Increases Safety and Efficiency



LEAD BATTERIES

Most Recycled Consumer Product

Lead batteries reign as the most recycled consumer product. 99% of batteries are safely recycled in an established

Learn more at www.kpsmc.co.kr



Batteries are in demand worldwide as storage media for renewable energies. But as production increases, so does the need for recycling methods that both recover the maximum amount of raw materials and ensure the highest level of safety for people and the environment.

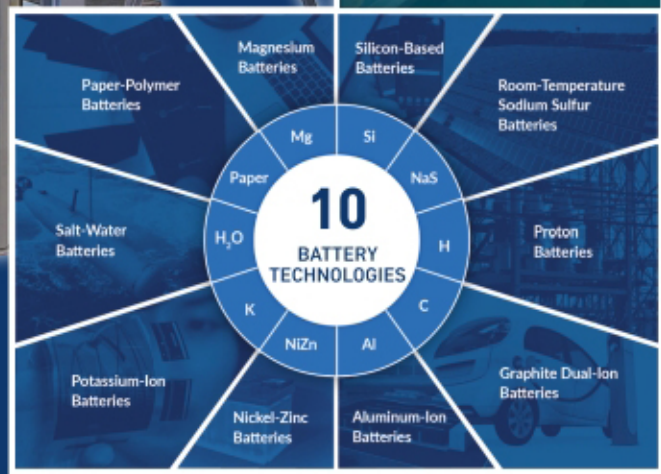
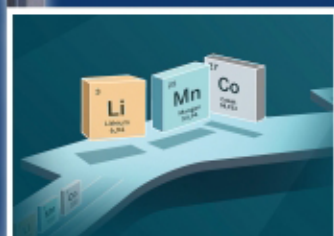
KPS has developed a new, innovative process that efficiently recovers copper, lithium, nickel, cobalt, and aluminum in an environmentally friendly manner. Safety is of utmost importance. This is ensured by a gas-tight process in a protective atmosphere—which also requires considerably less energy than conventional methods.

Advantages

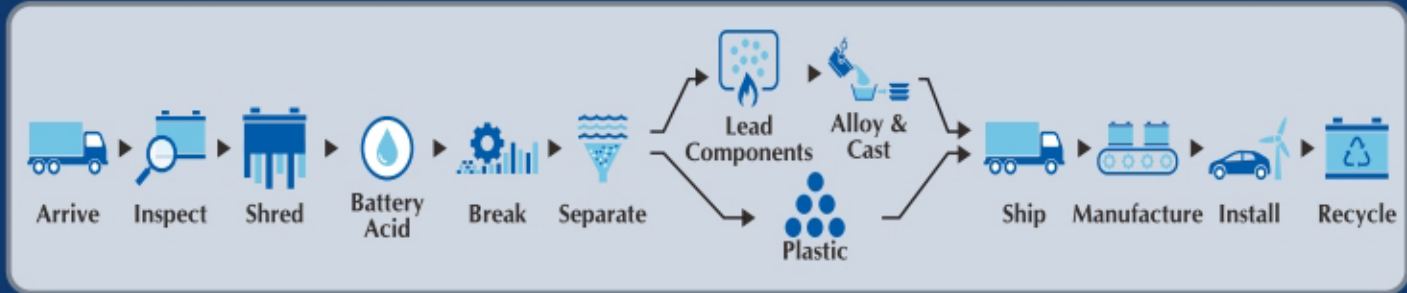
- Models are available in different sizes: modular design for small throughputs
- High process reliability and compliance with all occupational health and safety standards
- Maximum yield of raw materials, even aluminum, graphite, and lithium
- Global service

GET THE MOST OUT OF BATTERIES

Sustainably, Safely, Efficiently



Recycling Process



The challenge of battery recycling
 Sparking hazards, toxic components, and the wide variety of materials used make recycling batteries a challenge. KPS has developed an innovative recycling process that, unlike the approaches commonly used to date, ensures you do not have to compromise on safety, environmental protection, or cost-effectiveness.

Recovering high-quality raw materials
 The new process lets you obtain marketable, high-quality end products, such as aluminum concentrates, copper concentrates, and black mass. The latter contains graphite, lithium, or various other metals such as manganese, cobalt, and nickel. Condensed electrolyte accumulates separately in our system and can thus easily be sent on for further treatment or disposal.

Safety is our number one goal
 KPS offers appropriate solutions for shredding feed material - whether cells, battery modules, or even battery packs. The process takes place in a protective (inert) atmosphere in order to eliminate the risk of fire and leakage of toxic substances. The gas-tight design of the machines reliably prevents leakage.

Customized solutions
 Our plants and all process stages can be scaled to meet customer requirements - from 25 kg up to several metric tons per hour. All aggregates are adapted to the customer's specific needs. The modular design of plants for low throughputs ensures flexible implementation. Our process and recycling experts conduct trials in our own test center to determine the optimum process for maximum yield.

KPS



RECHARGEABLE BATTERIES

SINGLE-USE BATTERIES

CELLPHONES

Collected batteries and cellphones are recycled into new products.

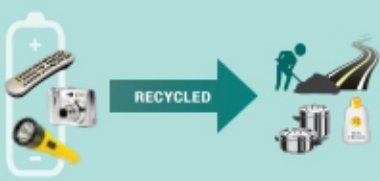
Nickel (Ni)

Used Ni-Cd, Ni-MH and Ni-Zn batteries are recycled into new products such as silverware, pots & pans, golf clubs and new batteries.



Alkaline

Used alkaline batteries are recycled into steel and new products such as sun screen and road asphalt aggregate.



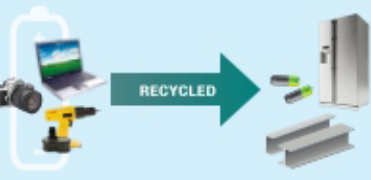
Refurbished

Cellphones are refurbished or resold with proceeds helping to fund the recycling and education program.



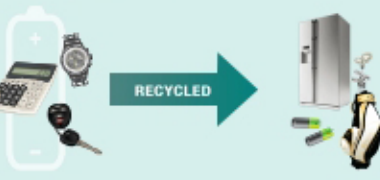
Lithium (Li)

Used Li-Ion rechargeable batteries are recycled into steel, stainless steel and new batteries.



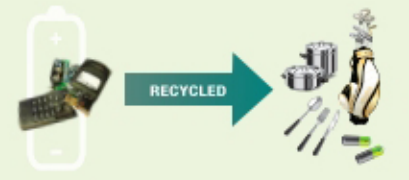
Lithium

Used Li-based primary batteries are recycled into new products such as silverware, stainless steel, golf clubs and new batteries.



Recycled

Cellphones unable to be refurbished are wholly recycled and manufactured into new products.



Lead (SSLA/Pb)

Used SSLA/Pb batteries are recycled into new Pb-based batteries.



collects and recycles

- Nickel Cadmium (Ni-Cd)
- Nickel Metal Hydride (Ni-MH)
- Nickel Zinc (Ni-Zn)
- Lithium Ion (Li-Ion)
- Small Sealed Lead
- Acid (SSLA/Pb)
- Single-Use/Alkaline
- Lithium Primary
- Cellphones



KPS

KOREA POWDER SYSTEM

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