

**LEADING IN
ELECTROSTATIC SEPARATION**

hamos 

WEEE Scrap Recycling Plant

hamos ERP



ERP I



ERP II



The **hamos** ERP recycling system is designed for economic recycling of WEEE scrap (Waste Electric and Electronic Equipment). The materials are processed into highly concentrated metallic and non-metallic fractions. The ERP system will give you a maximum recovery of marketable metal concentrates at lowest recycling cost.

The hamos ERP I recycles

2,000 ... 4,000 kg/hr of heavy WEEE-scrap like

- Computers / photocopiers
- Consumer electrics and electronics
- Household appliances and many more

The hamos ERP II recycles

1,000 ... 2,000 kg/hr of

- Printed circuit boards
- Light electronics
- Shredder residues and many more

With the hamos ERP system you will achieve

- Selected material fractions like: motors, transformers, stainless steel, coarse metals, printed circuit boards, coarse plastics etc.
- Highly concentrated non-ferrous fractions (containing copper, aluminium and precious metals like gold, silver, platinum, palladium etc.)
- Ferrous products
- Non-metallic products (mostly metal-free fine plastics, epoxy, glass fibres, ceramics, dust etc.)

The **hamos** ERP recycling plant is especially designed for the low cost recycling of approx. 2,000 kg/hr up to 4,000 kg/hr of heavy WEEE scrap and 1,000 ... 2,000 kg/hr of light WEEE scrap into clean metallic and non-metallic fractions.

With **hamos** ERP I non-disassembled electric items are shredded by a special heavy duty crusher. Coarse ferrous and non-ferrous parts are taken out automatically. Additional hand-picking stations allow to sort out additional valuable fractions like motors, transformers, stainless steel parts etc.

The **hamos** ERP II is designed to process "light" electric and electronic materials and shredder residues from ERP I or similar sources. A heavy duty hammer-mill grinds the material to achieve liberation between inert materials and metals. In addition wires and other interlocking materials are conglomerated for better separation. The ground material is then screened and de-dusted subsequently. From this fraction the valuable metal fraction is separated, using electrostatic and gravimetric separation technologies.

Advantages of the ERP System

- High recovery rate of metals (including precious metals)
- Clean metallic concentrates can be sold easily
- Recovery of steel, copper and aluminium
- Clean non-metallic fractions
- Heavy duty system, easy to operate
- Economic solution with low recycling cost
- Dry recycling process, no environmental hazards
- Reduced material size saves shipping cost
- Reduction of the scrap quantity to be dumped
- Certified destruction of WEEE production waste
- Special designed ERP systems for higher capacities are available as well

Products which can *not* be recycled:

- CRT monitors
- Electronic products with toxic contents
- Products with wet and oily fluids

Necessary material pre-treatment:

All toxic or harmful substances which may cause environmental or health problems must be removed prior to the recycling process.

Technical data:

Energy consumption

400 Volt, 3-phase

ERP I: approx. 350 kW

ERP II: approx. 300 kW

Achievable throughputs

ERP I: 2,000 ... 4,000 kg/hr

ERP II: 1,000 ... 2,000 kg/hr

Required space

The complete **hamos** ERP I/II plant (without stock for raw and finished products, runways for fork-lifts etc.) requires a minimum space of 20 x 50 m. The required minimum ceiling height is 10 m.

Other Equipment

In addition **hamos** supplies the following systems for WEEE scrap recycling:

- **CSS** for CRT monitor recycling
- **KWS** electrostatic separators for fine metal recovery
- **EKS** electrostatic separators for plastic-plastic sorting
- **ECS** eddy current separators
- **Magnets** (permanent and electro-magnets)

Please contact **hamos** if you have any other specific separation problem.

The Company

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