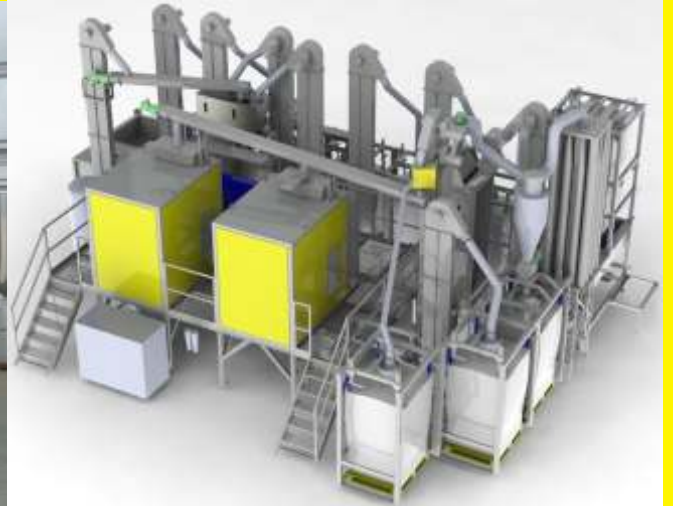


## Recycling System for Mixed Plastics from WEEE or Fridges

# hamos KRS



hamos supplies a turn-key KRS plastic recycling system for the automatic separation of pre-processed plastic mixtures, coming from the recycling of WEEE and refrigerators. Such plastic mixtures can be separated with the same KRS system and will be converted into PS, ABS and PP fractions with very high purities.

The KRS works best if the original plastics have been pre-processed in a prior separation step. Wet processes like sink-float separation or similar are recommended.

The hamos KRS uses field tested dry working electrostatic machines for the separation of wood, rubber, metals and other contaminations to gain high purities of ABS, PS and PP. Mixed Black Plastics are no problem.

### Your Advantages

- High separation efficiency and high purities of PS, ABS and PP
- Separation of wood, rubber, metals and other contamination
- Also **Black Plastics** can be separated
- Filled PP is separated as well
- Field-tested separation technology
- Concentrated waste fractions
- Fully automatic sorting process and material handling
- Economic solution at low recycling costs

**hamos is the worldwide leading expert in electrostatic plastic separation technologies for over 20 years.**

Trust in our experience like hundreds of worldwide customers do.

## Material pre-processing

Mixed plastic fractions from WEEE or fridges have to be pre-processed by wet separation (not part of our supply). Thus PVC flameretardant and other undesirable plastics and non-plastic impurities (metals, glass, etc.) are taken out. Concentrated PS/ABS fractions are the input for the hamos KRS.

Please consider that the liquids which are used for pre-processing must be approved by hamos!

The plastic mixture needs to be in size < 10 mm (3/8 in). The granulation system can be offered as an option.

## The KRS separation process

The granulated PS/ABS plastic mixture from WEEE or fridges is first de-dusted in the hamos DRS system. The hamos KWS separator takes out residual metals (Cu, brass, aluminum etc.) and other conductive materials like wood, rubber, cardboard etc. The residual humidity of the plastic mixture is now reduced with the hamos TDS thermal dryer. Three of hamos EKS separators are now separating WEEE (A) or fridge (B) plastic as follows:

### A) WEEE Plastics:

- 2 EKS systems are working in parallel
- Very clean ABS is produced in the first separation step
- The third EKS in line makes very clean PS in the 2nd separation step
- PP 20 (same density as PS/ABS) is separated as extra fraction
- hamos RSS takes out residual rubber and other elastomers

### B) Fridge Plastics:

- 2 EKS systems are working in parallel
- Very clean PS is produced in the first separation step
- The third EKS in line makes very clean ABS in the 2nd separation step

If necessary the quality of the final plastics can be further improved by using an optical colour sorter.

## Material specifications

The following plastic mixtures can be separated in the KRS:

- Plastics coming from WEEE or refrigerator recycling
- Mixtures of ABS/PS or similiar from ASR
- Particle size < 10 mm (3/8 in)
- Max. moisture < 0,5 %
- Pre-processing steps with salt solution must be approved by hamos

## Standard KRS specifications

The KRS can be tailor-made to meet the customers requirements. KRS includes following hamos machines:

- EKS electrostatic PS/ABS separators
  - KWS electrostatic conductor separator
  - DRS de-dusting system
  - TDS thermal drying system
  - RSS rubber separation system
- Complete material logisitics with infeed silos and big bag filling stations

## Performance Data of KRS

- Turn-key-system for 24/7 production
- From WEEE to fridge plastics at the touch of a button
- Throughput approx. 1500 kg - 1800 kg/h (3300 / 4000 lbs/hr)
- Touch panel operation in your language
- Individual adjustments of the separation parameters by servo-motors etc.
- Separation independent of colour
- Fully automatic material logisitics

All data, pictures and features shown on this catalogue are purely indicative and have no legal validity.

The manufacturer reserves the right to make changes and or update information at any time without prior notice.

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