UniSort® Flake
> with NIR or colour sorting in fine-grain materials
NIR or colour sorting of granulated plastic, ground materials or metals in the form of fine-grain materials

Reclaiming pure secondary raw materials without contaminants is a complex task. Achieving high-value recycling requires that even the smallest size particles are reliably separated according to their types and colours. The UniSort® Flake is right for your fine-grain materials, whether you’re using NIR or colour sorting of plastics, metals or minerals.

Your advantages:

- Adaptable for the widest range of materials to be sorted
- Spatially precise recognition and discharge of the material
- Easy-to-use touchscreen for simplest operation, flexible setting of sorting parameters, comprehensive statistics, and further data on the sorting process.
- Remote maintenance via Internet or UMTS for fast support
- Compact construction
- Latest sensor technology

The UniSort® Flake has been specially developed for sorting fine-grain materials. This is a demanding application which requires both high purity and high throughput.

The material to be sorted is evenly accelerated to a speed of more than 3 m/s by the belt. The material passes the recognition plane and is recognised independently of its material properties (using NIR or colour) before being precisely separated by the high-speed valve strip.

The latest developments in the area of sensor and computing technology make possible fast and high-resolution detection of even the smallest particle. NIR or colour cameras are used depending on the application. As a result, the system can be used for your metal, plastic and mineral sorting applications.

Technical data

- Throughput per module: approx. 0.4–2 t/h, depending on the material to be sorted
- Unit size (h,w,l): 2,000 x 1,500 x 4,100 mm
- Weight: 1,700 kg
- Installed load: approx. 11 kW
- Air requirement: approx. 1.5 Nm³/min, depending on the material to be sorted
- Fraction size: 3 – 30 mm for colour sorting, 5 – 30 mm for NIR sorting
- Belt speed: 3.0 – 4.5 m/sec.
- Sorting width: 750 mm
- Detections: > 24 million/sec. for colour sorting, > 27 million/sec. for NIR sorting
- Nozzle bar: 120 high-speed valves
With Near Infra-Red or Colour Sensor available this innovative UniSort® Flake is based on combining both functionality and design to create a new generation of sorting equipment. The approximately three metre long high-resolution machine can achieve efficiencies previously unheard of for sorting plastics, metals and other materials down to very fine fractions.

Powerful, user-friendly, compact and flexible, these are the distinguishing features of STEINERT’s new Unisort® Flake.

PLASTIC SORTING

Unisort® P Flake - Uses Hyper Spectral Imaging (HSI) NIR technology to detect different types of plastic. Separates foreign plastics out of the flow of bulk material. Used for sorting PET flakes, re-granulate PVC, PE, PS or PP flakes.

COLOUR SORTING

Unisort® C Flake - This sorter is developed to sort material of different colours eg. aluminium and lead out of copper and copper wire, or clear PET from coloured.
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