FLAKE PURIFIER+

Reliable detection and sorting of plastic flakes and regrind according to plastic type, color and metal foreign bodies.
Precise sorting of plastics with the FLAKE PURIFIER+

The high-precision FLAKE PURIFIER+ sorting system ensures maximum purity of high-quality flake and regrind material streams. Defective plastics, inks, and metallic contaminants are separated automatically and reliably. Efficient, precise and profitable.

Recovery Option
Via the additional separating unit, contaminated material is examined separately and returned to the material flow with a recovery rate of up to 98%.

1. Main Input
   Contaminated input material

2. Final Accept
   Purified end product

3. First Stage Reject
   Heavily contaminated product: Discarded foreign substances and off-colors

4. Second Stage Accept
   Contaminated material: Result of cleaning step 3 (First Stage Reject)

5. Final Reject
   Final poor product / „waste“

Efficient
- Very high material throughput of up to 3.8 t/h
- Integrated recovery of good material possible
- Later sensor upgrade possible at any time

Precise
- Reliable detection and sorting according to plastic types, colors, metals and foreign objects with only one system
- Very high degree of purity of the sorting fractions of up to 99.999%
- In contrast to simple NIR technologies, HYPERSPECTRAL technology allows simultaneous sorting of multiple foreign plastics
- Minimal loss of good material

Profitable
- Best possible sorting result even with poor material quality
- High plant availability due to low maintenance and cleaning requirements
- Flexible system configuration
- Profitable sorting process

Your challenge
Purity is crucial for the quality of a recycled plastic.

Multi-sensor sorting systems offer the optimal solution to ensure:
- High material purity to meet the highest quality requirements
- High material throughput for more profitability
- Minimal loss of good material for highest efficiency

Three steps to your flexible sorting system

System configuration
- Station with
  - Sensor combination
  - Integrated resort track
  - VISUDESK visualization software

Flexible service package
- On-site commissioning
- Optional on-site or remote support optimization
- Warranty packages

Higher profitability

Optional connection set: Planning and integration into the recycling line
In order to integrate our FLAKE PURIFIER+ into your plant, we offer the possibility of ordering a coordinated set consisting of feed hopper, level sensors with speed control of the vibratory feed chutes and the corresponding steel structure, as well as the suitable discharge hoppers.

Different types of materials
The FLAKE PURIFIER+ is capable of sorting a wide range of materials at high throughputs with maximum efficiency and, at the same time, minimal loss of good material.

Color sensor
Color and shape recognition with the Sesotec C Sensor (Color) is performed by an independent camera system. This allows the sensor to be optimally adjusted to the respective sorting task. Innovative LED lighting enables both economical and efficient sorting: In addition, the detection of white-opaque TiO2 flakes is also possible.

Metal sensor
The Sesotec M sensor (metal) reliably detects the smallest metal contaminants, regardless of their magnetic properties. All our experience from over 40 years of metal detection in various industries lies in this sensor. It stands for precision, robustness and reliability.

Near Infrared sensor
The Sesotec N hyperspectral sensor with halogen illumination is the proven solution for high-end applications such as bottle-to-bottle, tray-to-tray and other food-grade plastic sorting tasks. The high precision sensor reliably and simultaneously detects a wide range of foreign plastics such as labels (PVC), caps (HDPE, PP) or even PET-like plastics (e.g. PET-G).

PET Flakes
Oxygen / UV Blocker Flakes
HDPE Flakes
PE / PP regrind
**VISUDESK**

To improve product quality and the efficiency of sorting and recycling plants, process data is essential for operators. With the VISUDESK visualization software, these can be easily and clearly displayed on all Sesotec devices. Based on this data, they can derive targeted measures to increase efficiency and effectiveness on the one hand and minimize downtime on the other. The OPC UA-based machine communication model is implemented both on the devices and on a server, enabling both stationary and mobile access to the application.

**Added value through VISUDESK**

- Control of the sorting process
- Optimization of the sorting plant
- Predictive maintenance
- Reduction of downtime
- Fact-based decisions

---

** Technical data **

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Throughput up to (kg/h)*</td>
<td>Up to 3.8</td>
</tr>
<tr>
<td>Suitable grain sizes</td>
<td>2 - 20 mm</td>
</tr>
<tr>
<td>Power (max. KVA)</td>
<td>3.4</td>
</tr>
<tr>
<td>Temperature range</td>
<td>+5°C to +40°C</td>
</tr>
<tr>
<td>Weight</td>
<td>1300 to 1500 kg</td>
</tr>
<tr>
<td>Electrical connection</td>
<td>Power connection cable 5x4 mm²</td>
</tr>
<tr>
<td>Electric fuse</td>
<td>16 A</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP 54</td>
</tr>
<tr>
<td>Rated current (max. A)</td>
<td>5</td>
</tr>
</tbody>
</table>

*The actual values that can be achieved may deviate from those specified and depend on the nature of the material as well as the external influences and conditions at the site.

---

** Service **

**Remote Access**

For troubleshooting, our service technicians can easily access your machine via Ethernet.

**Remote Support with Augmented Reality**

For troubleshooting via video support by our support center, simply download a free app and send us the access data.

**Service Hotline Sorting**

+49 (0) 8554 - 308 129
service.sorting@sesotec.com