

**C**

Color sensor

M

Metal sensor

N

NIR sensor

SORTING SYSTEM

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.

Your challenge

Purity is crucial for the quality of a recycled plastic.

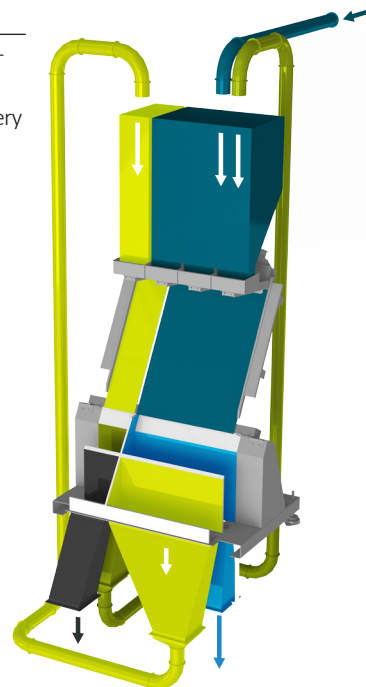
Multi-sensor sorting systems offer the optimal solution to ensure:

- High material purity to meet the highest quality requirements
- High material throughput for more profitability
- Minimal loss of good material for highest efficiency

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



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).

Three steps to your flexible sorting system

System configuration

- Working width
- 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.



PET Flakes



Oxygen /
UV Blocker Flakes



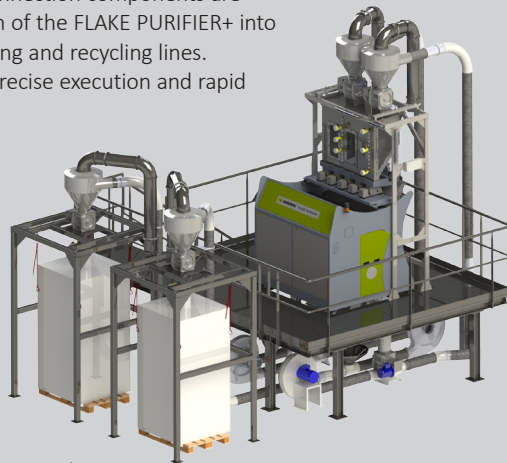
HDPE Flakes



PE / PP regrind

Complete package from a single source

Various accessories and connection components are required for the integration of the FLAKE PURIFIER+ into either existing or new sorting and recycling lines. Our 3D planning ensures precise execution and rapid on-site installation.



Schematic 3D planning of the FLAKE PURIFIER+ and plant components

Your advantages

- Efficient – Precise – Profitable
- Economical:
high throughput, low loss, high plant availability
- User-friendly:
easy maintenance, automatic sensor calibration, modern graphical user interface

More information

<https://www.sesotec.com/emea/en/lp/flake-purifier-plus>

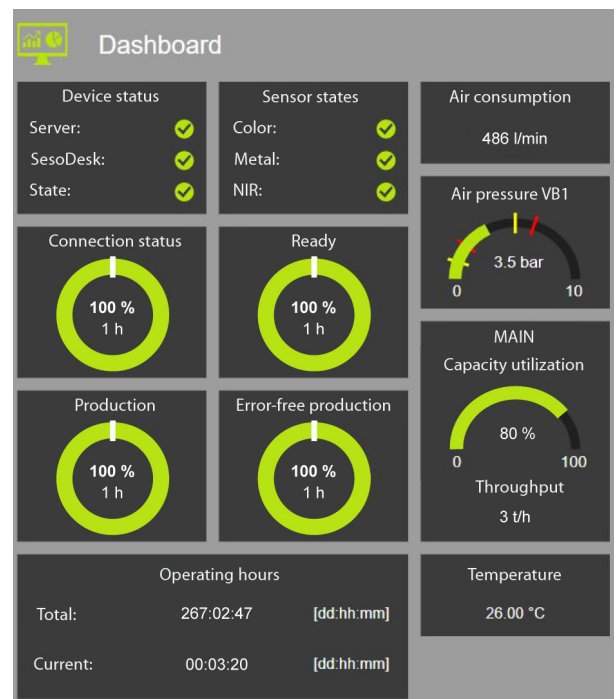


VISUDESK

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



Dashboard visualization of process data, valve data, evaluation data and material data

Technical data

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

*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

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