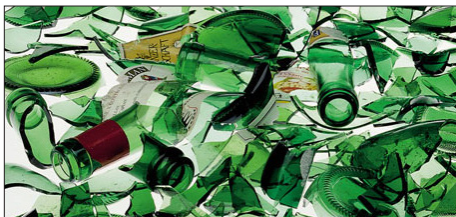


# SPEKTRUM

## Sorting System for the glass recycling industry

- Gravity fall detection for dry and wet material
- Colour separation and sorting
- CSP separation
- Separation of special glass
- Separation of metals

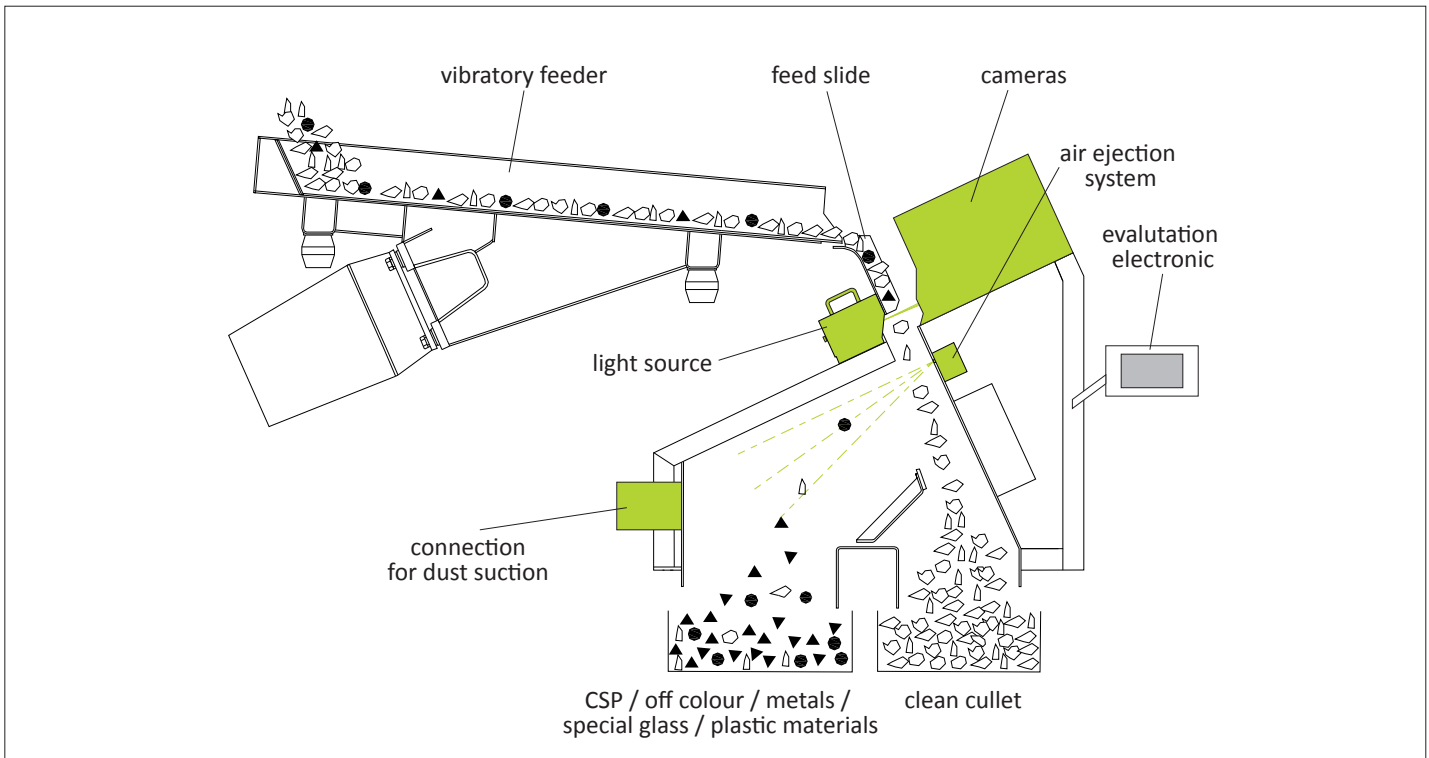


### **SPEKTRUM BASIC**

With high-performance CCD colour cameras for colour and CSP separation. Optionally with metal sensor.

### **SPEKTRUM FLASH**

With high-performance CCD monochrome or colour cameras for colour, CSP and special glass separation. Optionally with metal sensor.



Function description: SPEKTRUM

### Function principle:

The cullet is distributed by an electromagnetic vibratory feeder and fed to the gliding plate of the SPEKTRUM. The cullet flows down the gliding plate. Therefore an optimal distribution and separation of the cullet is guaranteed. After the gliding plate a super high speed camera is installed. The camera is able to measure finest colour differences even invisible to the human eye.

Depending on the adjustment of the evaluation electronics, coloured cullet, special glass or CSP will either be ejected or pass the air ejection system.

The operating software was developed with particular emphasis on making the software as easy to use and as clearly structured as possible. SPEKTRUM systems feature the so-called "Auto-Learn Mode" that allows the user to program the system for the respective sorting task simply by feeding the material fractions that should be separated.

SPEKTRUM FLASH analyses information in different light wavelength ranges. The combination of different light types allows the identification of foreign colours, CSP, as well as heat-resistant and/or fluorescent (lead containing) special glasses, which are then reliably and efficiently separated by air-blast nozzles that respond with millisecond accuracy. With the extension of colour analysis from the conventional three base colours to now up to nine base colours, and with the increase of the local resolution to up to 0.2 mm per pixel, SPEKTRUM FLASH sets new standards for sorting accuracy in the field of glass sorting.

### Advantages:

- High throughput rate
- High ejection reliability
- Simple operation
- Compact design
- Simple integration in production plants
- Upgrade option
- EcoValve function

### Performance features:

- High performance monochrome or colour CCD camera
- Metal detection as option
- Temperature-stable fast-switching valves with up to 500 operations/sec.
- 3,2/4 mm and 6,4/8 mm valve/nozzle grid
- Detection rate of more than 50,000 parts/sec.
- Working widths 1024 mm, 1280 mm and 1536 mm
- Modular structure (individual sensor upgrade)
- Easy to service (low service costs)
- Plug and work
- Low-maintenance lighting and camera systems
- Remote maintenance, monitoring and data management
- Individually programmable