

# SPEKTRUM BASIC / SPEKTRUM FLASH

## Sorting System for the glass recycling industry

- Improvement in quality of white, green and brown glass
- Color separation and sorting
- Separation of ceran impurities
- CSP separation
- Separation of lead glass impurities



- FLASH Technology as option
- High performance monochrome/colour CCD cameras
- Upgrade options (metal sensor)
- Detection rate of more than 50,000 parts/sec.
- Can be integrated into the VISUTECH data management system

### Areas of application:

The SPEKTRUM BASIC / SPEKTRUM FLASH colour separator is used for the colour separation of cullets and CSP separation from a grain size of 5 mm. It is mainly used for quality improvement in the recycling of fine glass, hollow glass, and flat glass in a predominantly single-coloured cullet flow, e.g. in white or brown glass enrichment.

In addition, the colour separator also offers the option of obtaining high-quality single-colour fractions from mixtures of differently coloured shards.

SPEKTRUM FLASH also detects heat-resistant and/or leaded special glass types.

### Technology:

Using high-performance CCD monochrome or colour cameras and temperature-stable quick-acting valves with up to 500 switching operations / sec. these separators generate high-quality single-colour bulk material fractions even in case of colour contaminations in a two-digit percentage range.

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 leaded 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.

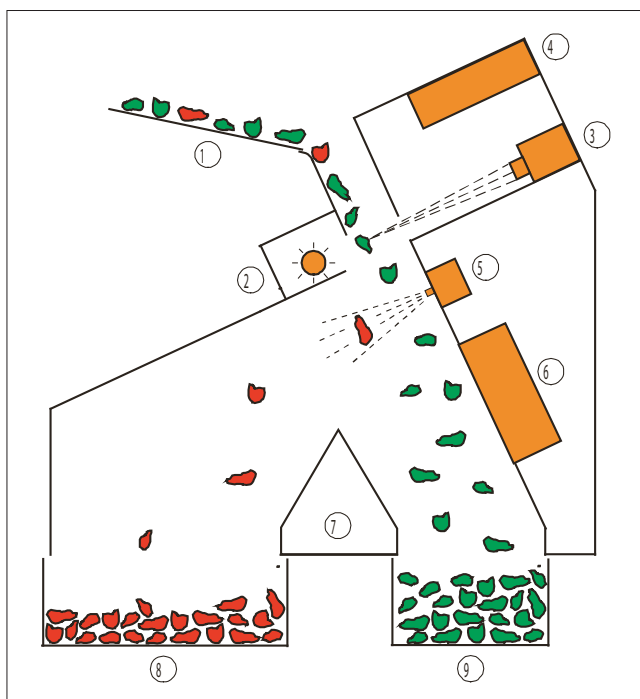
### Performance features:

- FLASH Technology as option
- High performance monochrome or colour CCD camera
- Metall 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

### Advantages:

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

### Function Chart:



- 1 Conveying channel
- 2 Lighting
- 3 CCD line scan camera
- 4 Image processing
- 5 Blow-out system
- 6 Valve control
- 7 Separation plate
- 8 Impurities
- 9 Purified good material

### VISUTEC data management system:

All colour separators from the SPEKTRUM BASIC / SPEKTRUM FLASH series can be networked with a PC on which the data management software VISUTEC is installed. Thus you have an optimum quality control centre, with which, for example, the input quality of the material to be processed can be permanently monitored and logged.

VISUTEC makes the search for foreign matter transparent:

- On-line querying of the log data
- Central setting/changing of parameters
- Remote maintenance
- Software updates