Processed recycled glass cullet is the most important raw material for the container glass industry and the better the quality the more of it can be utilized. With the REDWAVE Quality Management System (REDWAVE QMS) BT-Wolfgang Binder offers an excellent tool to continuously control and monitor the sorting process.

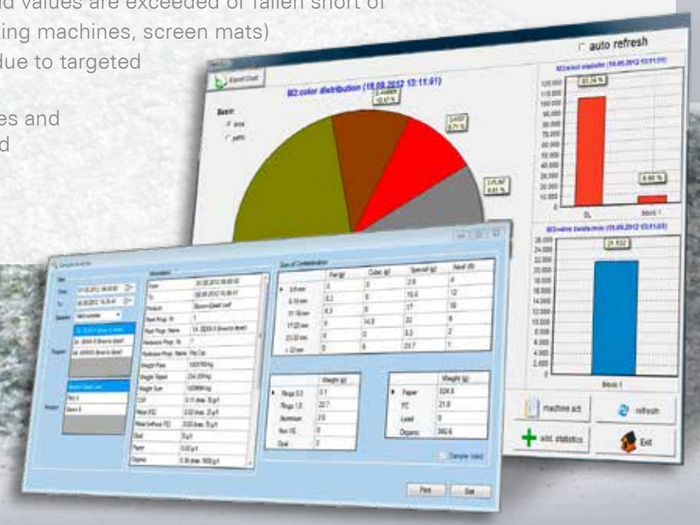
The REDWAVE QMS consists of:

- REDWAVE Process Monitoring and Control System (REDWAVE PMCS) for the continuous monitoring and optimizing of the sorting process by means of permanently analysing the individual sorting steps
- REDWAVE Sample Analysing System (REDWAVE SAS) for the continuous quality analyses of the furnace-ready cullet

The combination of these two systems guarantees optimum performance of the beneficiation processes and the production of high quality raw material for the glass industry.

Customer Benefits:

- Automated quality control of high volume samples
- Continuous product analysis (grain size, weight, colour distribution)
- Quality assurance and quality control already during sorting process
- Clearly-structured graphics
- Warning message if threshold values are exceeded or fallen short of
- Fault finding assistance (sorting machines, screen mats)
- Increase of plant efficiency due to targeted data evaluation
- Archiving of previous analyses and monitoring over a long period



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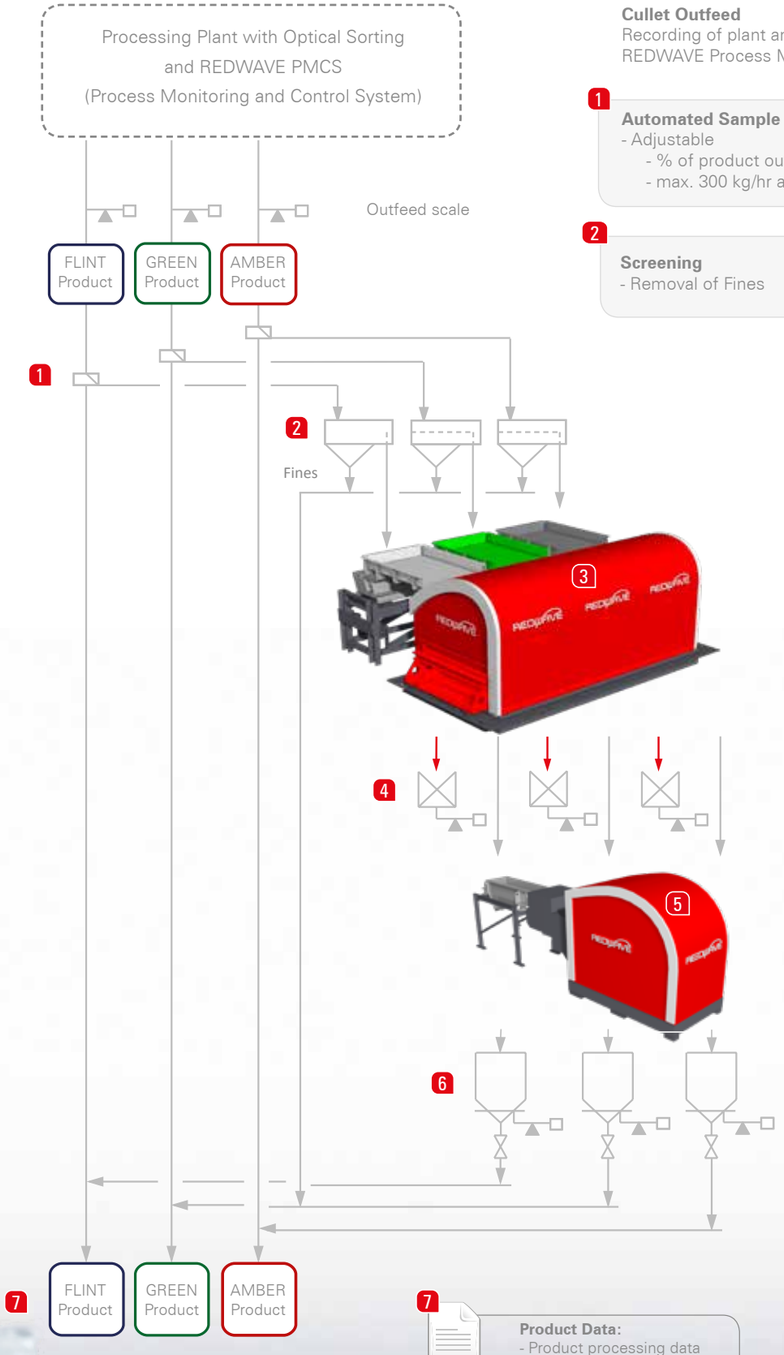
designed by BTMC | RED-S19-52

SAS
SAMPLE ANALYSING SYSTEM

Sensor based sorting technology for glass recycling

www.redwave.com

Integrated System for Cullet Processing Plants



Cullet Outfeed
Recording of plant and production data generated from REDWAVE Process Monitoring and Control System

1 **Automated Sample Taking**
- Adjustable
  - % of product outfeed
  - max. 300 kg/hr and colour (max. 650 lbs/hr)

2 **Screening**
- Removal of Fines

3 **REDWAVE Optical Sample Analyser**
- Statistical data acquisition
  - Colour disitribution
  - Size distribution
  - CSP (Ceramics, Stones, Porcelain) content
  - Metals content
- Eject contaminants
  - CSP and metals

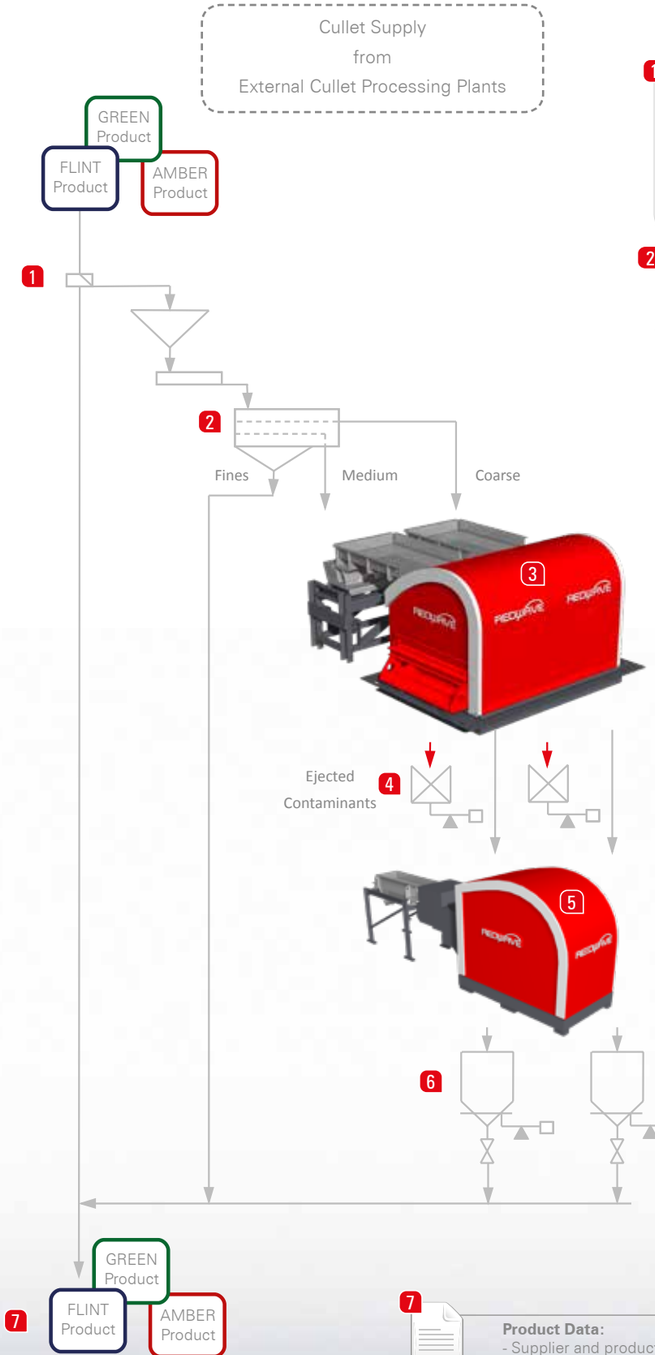
4 **Ejected Material Flow**
- Ca. 2 - 5% of the analysed sample
- Continuous weighing and recording
- Manual analysing
- Data set entry
- CSP - content , size and type
- Metal - content, size and type

5 **REDWAVE XRF Sample Analyser**
- Statistical data acquisition
  - Lead content
  - Other heavy metals (Strontium, Barium etc.)
  - Glass-ceramics (heat resistant glass)

6 **Passing Material Flow**
- Continuous weighing and recording
- Automated discharge of collection bin
- Recirculation to finished products

7 **Product Data:**
- Product processing data
- Product quality
- Other information

Stand-Alone System for Cullet Processing Plants or Cullet Quality Control at Glass Manufacturing Plants



Cullet Supply
Recording of supplier and product data

1 **(Automated) Sample Taking**
- % of supplied product batch

Materialhopper
- Discharge feeder
  - adjustable - max. 600 kg/hr (1300 lbs/hr)

2 **Screening**
- Removal of Fines

3 **REDWAVE Optical Sample Analyser**
- Statistical data acquisition
  - Colour disitribution
  - Size distribution
  - CSP (Ceramics, Stones; Porcelain) content
  - Metals content
- Eject contaminants
  - CSP and metals

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7 **Product Data:**
- Supplier and product data
- Product quality
- Other information