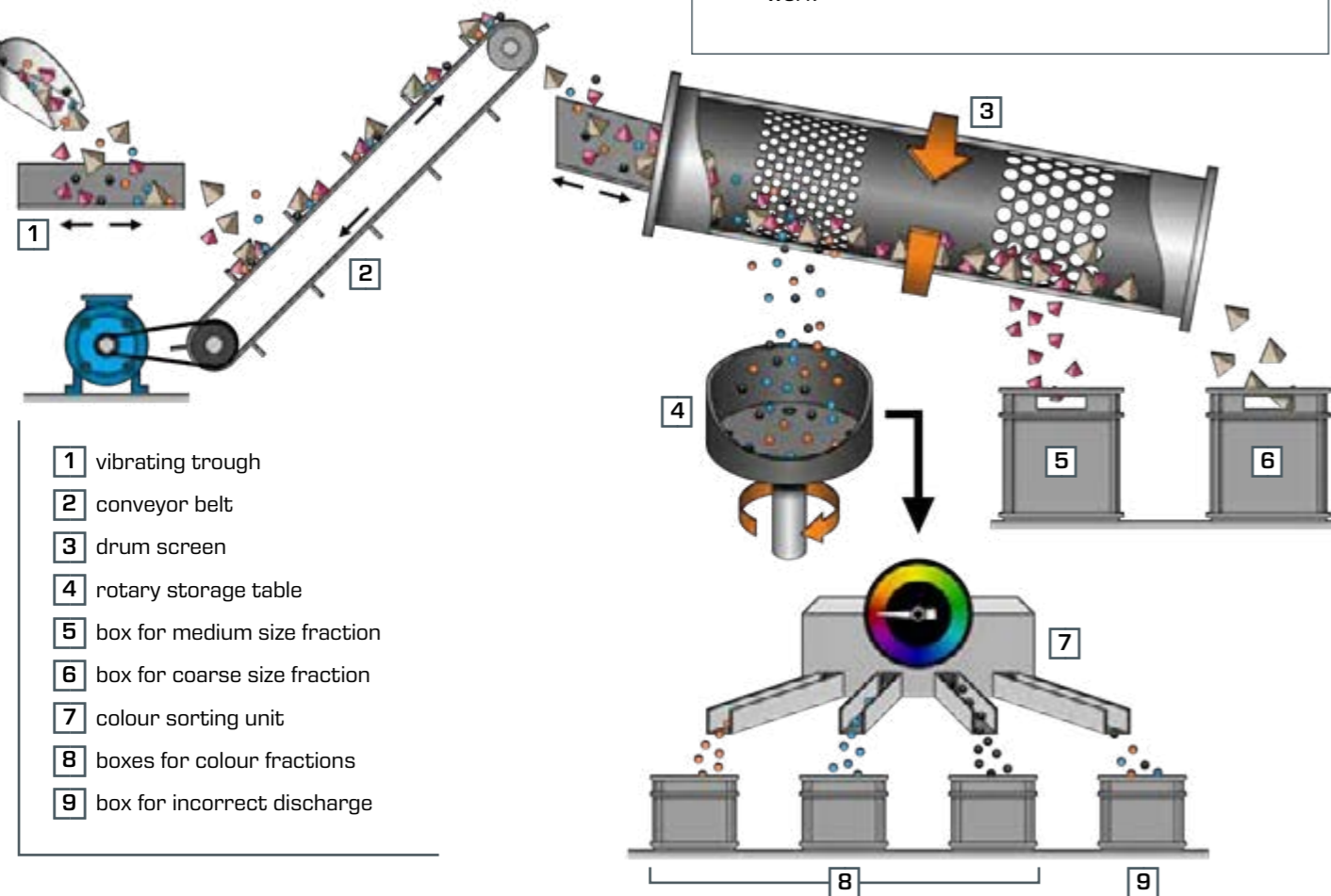


MT174 Sorting plant

The separation of mixtures of waste material into individual fractions of the same properties is an essential part of waste management. It is a requirement of effective recycling processes in order to be able to return recyclable materials to the cycle.

The MT 174 Sorting plant is modelled on a typical separation process from waste management and includes classification by means of a drum screen and colour sorting.

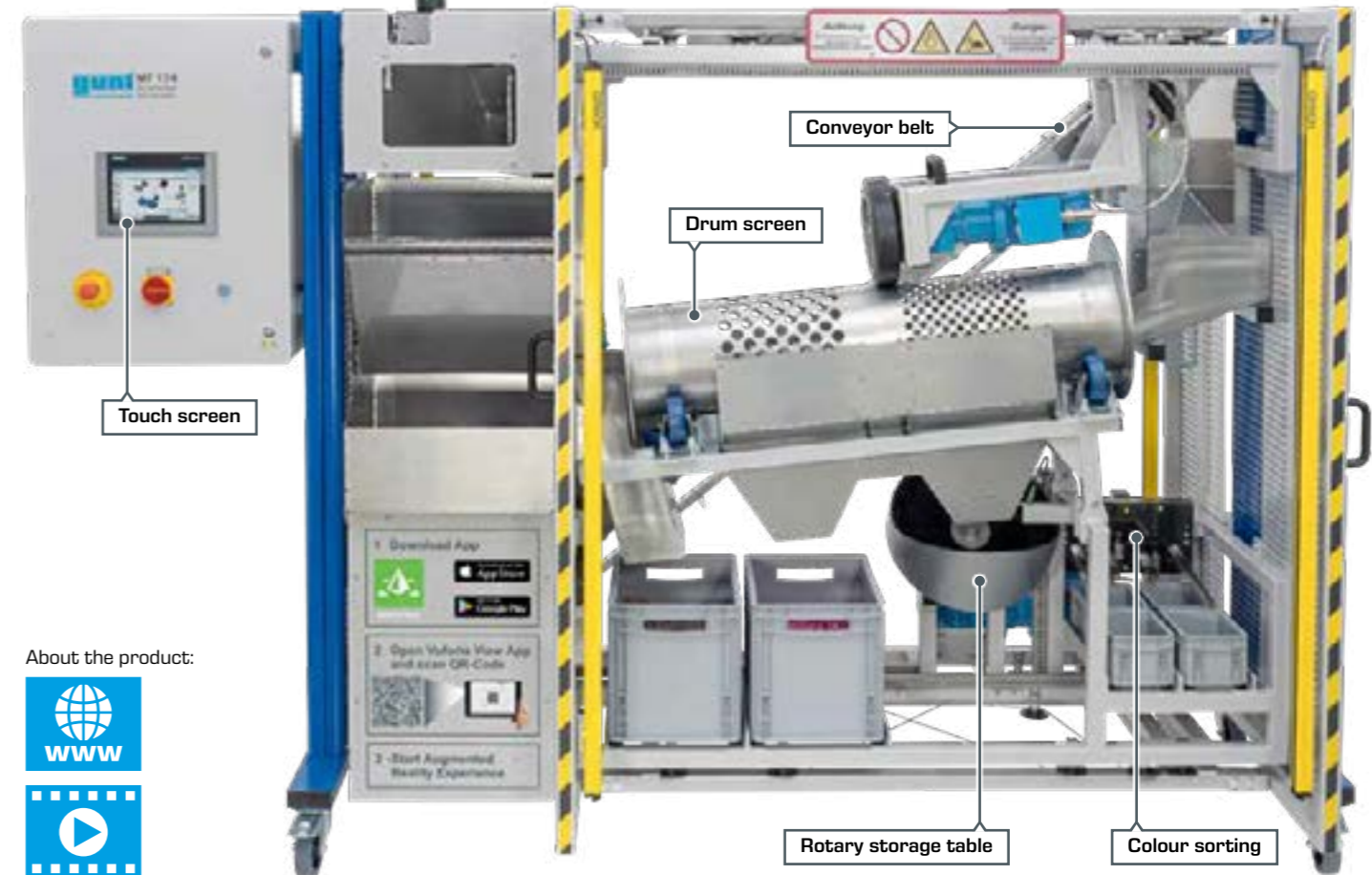
- laboratory scale sorting plant with standard industrial components
- separation into 3 size fractions with drum screen
- colour sorting into 3 fractions
- control of the experimental plant using a PLC, operated by touch screen
- augmented reality for visualisation of maintenance work



Drum screen



Rotary storage table and colour sorting

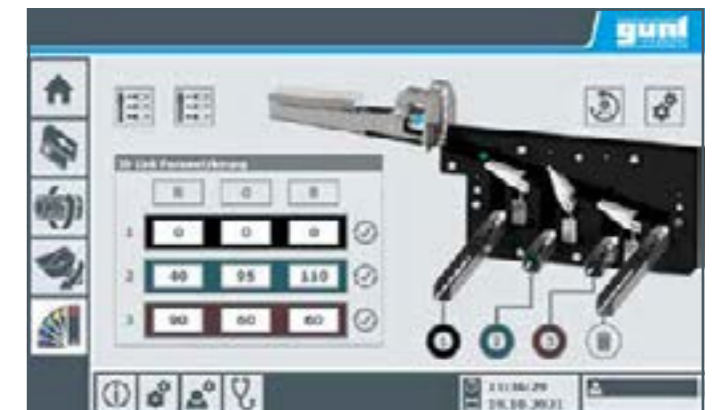


About the product:



PLC with touch screen

The plant is controlled by a modern PLC with touch screen. For the sake of transparency, a separate user interface is provided for each functional group. All parameters relevant to the separation process can be configured using the PLC. These include, for example, the speed and inclination of the drum screen. It is also possible to define the colours of the particles to be sorted in the PLC.



Screenshot from the PLC (colour sorting)

Learning objectives

- influence of the following parameters on the separation process:
 - ▶ conveyor belt speed
 - ▶ inclination and speed of the drum screen
 - ▶ speed of the rotary storage table
 - ▶ frequency of the vibrating troughs
 - ▶ color definition for color sorting
- maintenance work on an industrial plant
 - ▶ time-controlled
 - ▶ sensor-controlled
 - ▶ supported by augmented reality

Maintenance

Maintenance and servicing are prerequisites for the reliable operation of a sorting plant. Which is why it is possible to perform maintenance work on the sorting plant for training purposes. If the plant is operated in training mode, the PLC independently generates time- and sensor-based messages for maintenance work to be carried out. An augmented reality interface is available for mobile devices to visualise the maintenance work.