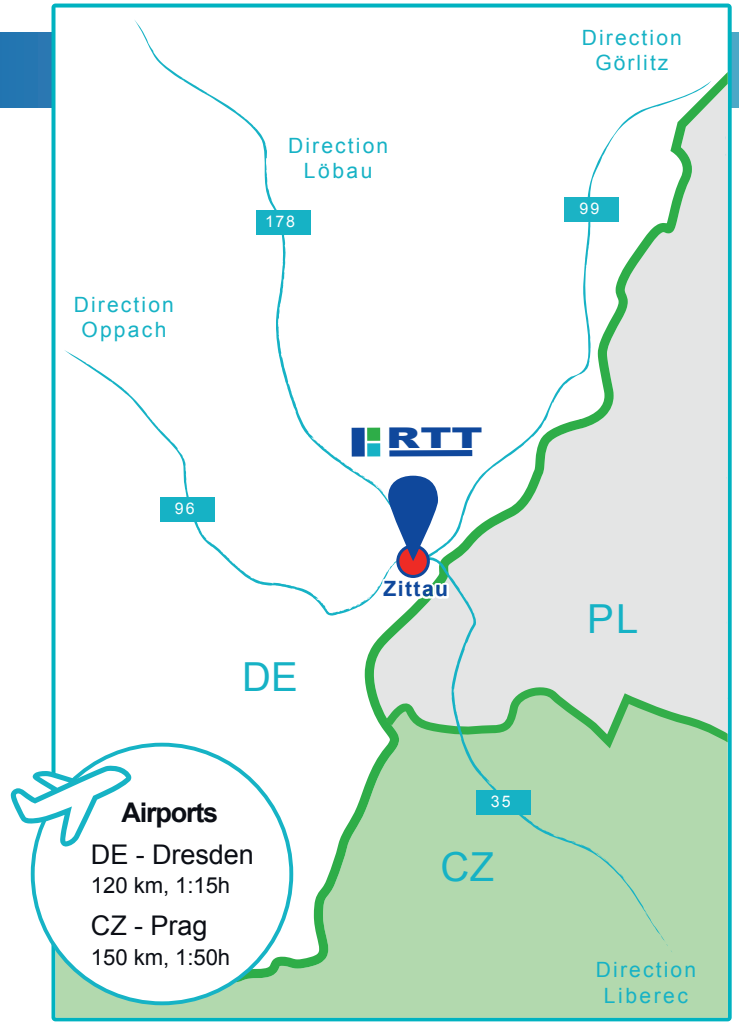
The analysis of materials and material flows has been part of the core competence of RTT System GmbH since its foundation in 2010. All RTT products are characterised by a high proportion of in-house production and a very high level of in-house development.
The heatanalyser also fits into the product group of analysis devices from RTT System. Our self-developed evaluation algorithms are also used for the detection of hotspots - often caused by damaged batteries or accumulators. Modern recycling plants usually have a pre-shredding stage.
Due to the mechanical stress during the shredding process, the objects are heated to a greater or lesser extent and usually cool down again quickly after the pre-shredder.
If the objects do not cool down or even heat up further, they may be damaged batteries or accumulators. In other words, objects that carry energy themselves.
This type of misdirected waste is a growing problem for recycling plant operators.
The heatanalyser is able to visually display temperature differences of individual objects compared to their surroundings and also to show them as absolute values.
Its detection unit, consisting of an IR- and a high-resolution VIS camera, is able to reliably localise hot objects even within a pile.
Early localisation and evaluation of these false throws can prevent unnecessary plant stops or even damage. In particular, the automatic ejection of the objects in question by the heatanalyser can permanently guarantee your operational safety.
The consistent use of the heatanalyser thus means higher plant availability and less risk of fire occurring in later process stages, such as the trommel screen.

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# heat**analyser**

Sensor system for early fire detection

# heatanalyser

## PURPOSE OF USE

On the basis of intelligent image analysis, the heatanalyser makes it possible to locate hot spots and hot objects at an early stage. It supports effectively in preventing and containing fires in your plant.

## TECHNICAL DATA

- **Power consumption:**
  max. 100 W
- **Supply voltage:**
  230 V AC
- **Dual-Camerasystem:**
  IR and VIS
- **Sampling rate of IR-Camera:**
  9 Hz
- **smallest detectable object size:**
  5 x 5 mm
- **Detection range (conveyor belt width):**
  500 – 1.500 mm
- **compressed air requirement:**
  2 - 5 l/min

## VIDEO

The video shows a heat analyser integrated on the conveyor belt in the “GNV“ version with deletion & direct ejection.

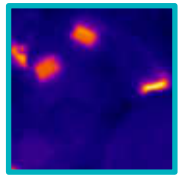
## INTEGRATION

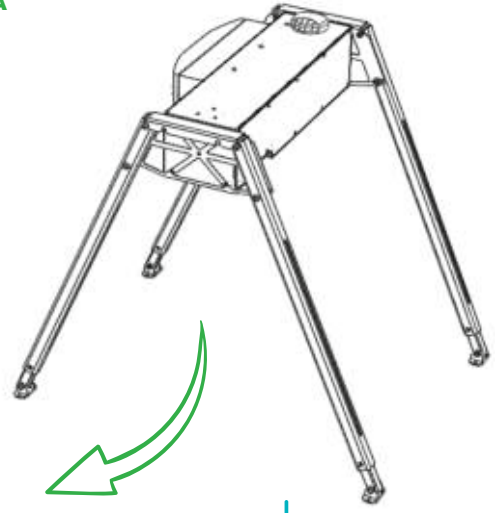
- Simple installation on existing conveyor belt
- Potential-free contacts enable integration into existing systems

## IMAGE PROCESSING

COLOUR CAMERA

IR-CAMERA





## RELEASE

- when the temperature rises
  → alarm or ejection
- if the temperature drops
  → no action

## RESULT

High system availability due to significantly fewer false alarms!

## DEVICE FEATURES

- AI-based analysis of temperature curves
- Detection of the temperature of objects concealed in the heap
- Analysis of the temperature change over a defined period of time
- Stronger weighting of surfaces compared to spots
- Trigger temperature freely selectable in the range of 0 - 400 °C
- Configurable, intelligent temperature compensation to minimise false triggering
- Uninterrupted ejection of localised objects in the GNV version
- Sending of IR- and VIS-HD camera images to freely configurable mail distribution lists
- Web interface for configuration and observation of the sensor
- Built-in VPN router for connection to the internet as well as for remote maintenance (LAN, WLAN, LTE)

RTT System GmbH

MADE IN GERMANY