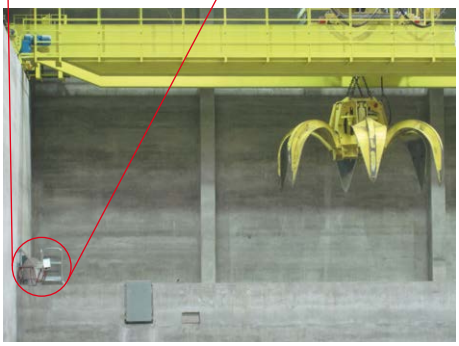
Infrared Monitoring System

Early Fire Detection and Security Applications

InfraTec.



Monitoring of waste bunkers, warehouses and open areas

Automated early detection of bunker fires

Prevention of toxic air pollution emissions

Established fire-protection system

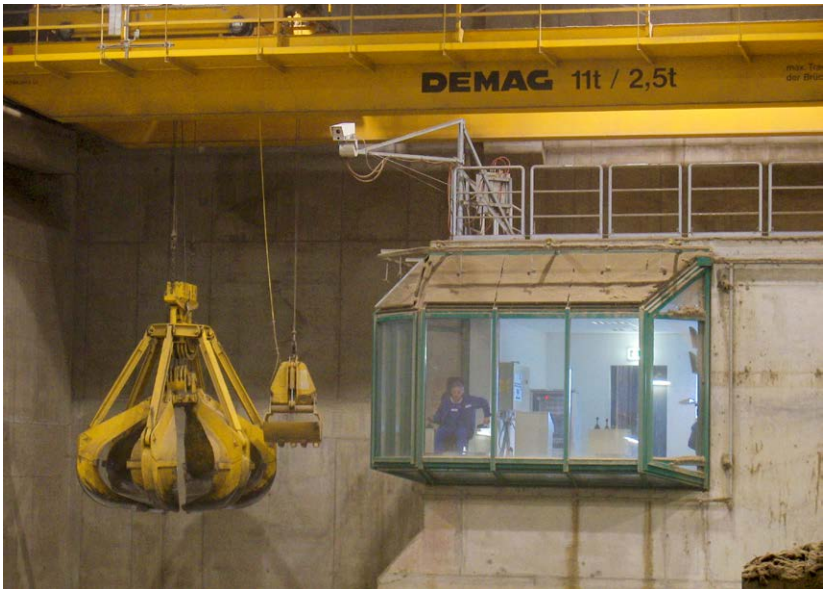
www.InfraTec.eu

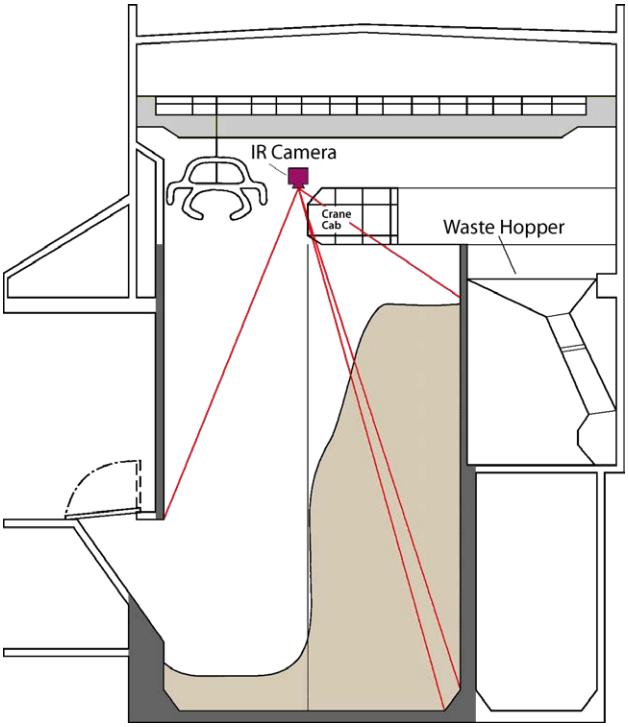
Reliability by Automated Thermography

Complete Storage Space Monitoring

Features

- Works even with one single thermographic camera by application of pan-tilt head
- Automated scanning of several inspection sections
- Maximum cycle time two minutes
- Sector position accuracy < 0.2°
- Switch to manual control for observing suspect spots and evacuating critical objects
- Pilot control of extinguishing zones according to a pre-defined zone table
- Support of multiple recipes (day and night time operation)
- Detect automatically sources of interference



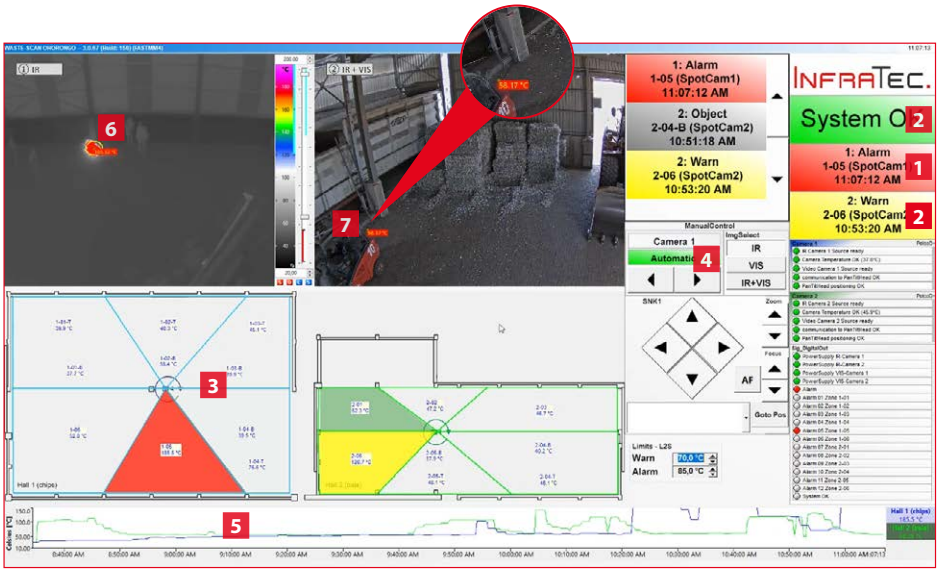


High-resolution Thermographic Camera

- Quality made in Germany
- Uncooled FPA-Microbolometer detectors of various formats
- High geometrical resolution and thermal sensitivity
- High-contrast, low-noise thermal image
- Localisation of hot spots even under dusty or smoky conditions
- Spectral range (7.5 … 14) µm; frame rate 50 / 60 Hz
- Real-time data acquisition (Gigabit Ethernet)
- Internal automatic calibration
- Rugged housing for industrial applications IP65 (stainless steel*)
- Extremely high level of system availability
- Additional digital colour video camera*

Ruggedized outdoor housing

Powerful Software



Software interface of multiple camera solution

1 Alarm indication

2 Status indication

3 Temperature values of single sections

4 Control mode, automatic / manual

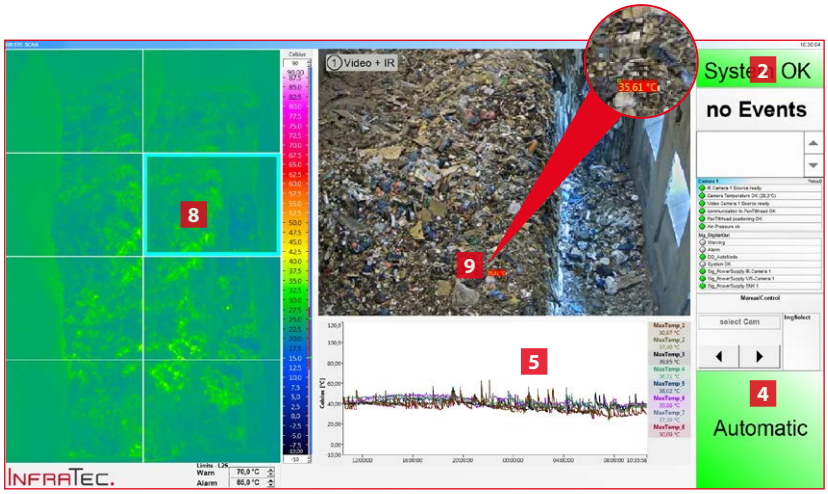
5 Temperature vs. time profile

6 Camera 1: Thermal image incl. detecting and marking sources of interference

7 Camera 2: Merging of thermal and live image of the detected area incl. hot spot

8 Thermal images of all sectors

9 Choosen sector: Merging of thermal and live image of the detected area incl. hot spot



Software interface of single camera solution

- Continious display of current thermal images of all sections (mosaic-overview)
- Simultaneous display of live image (thermal image and colour video)
- Camera and system status indication
- Merging of live images of thermographic and video camera
- Recording of maximum, minimum and average temperature of each section
- Single or multiple-camera system available
- Graphics of temperature-time profile of all sections
- Logging of operations
- Filing of image data
- Detecting and marking of sources of interference, e.g. wheel loaders

Alarm Release

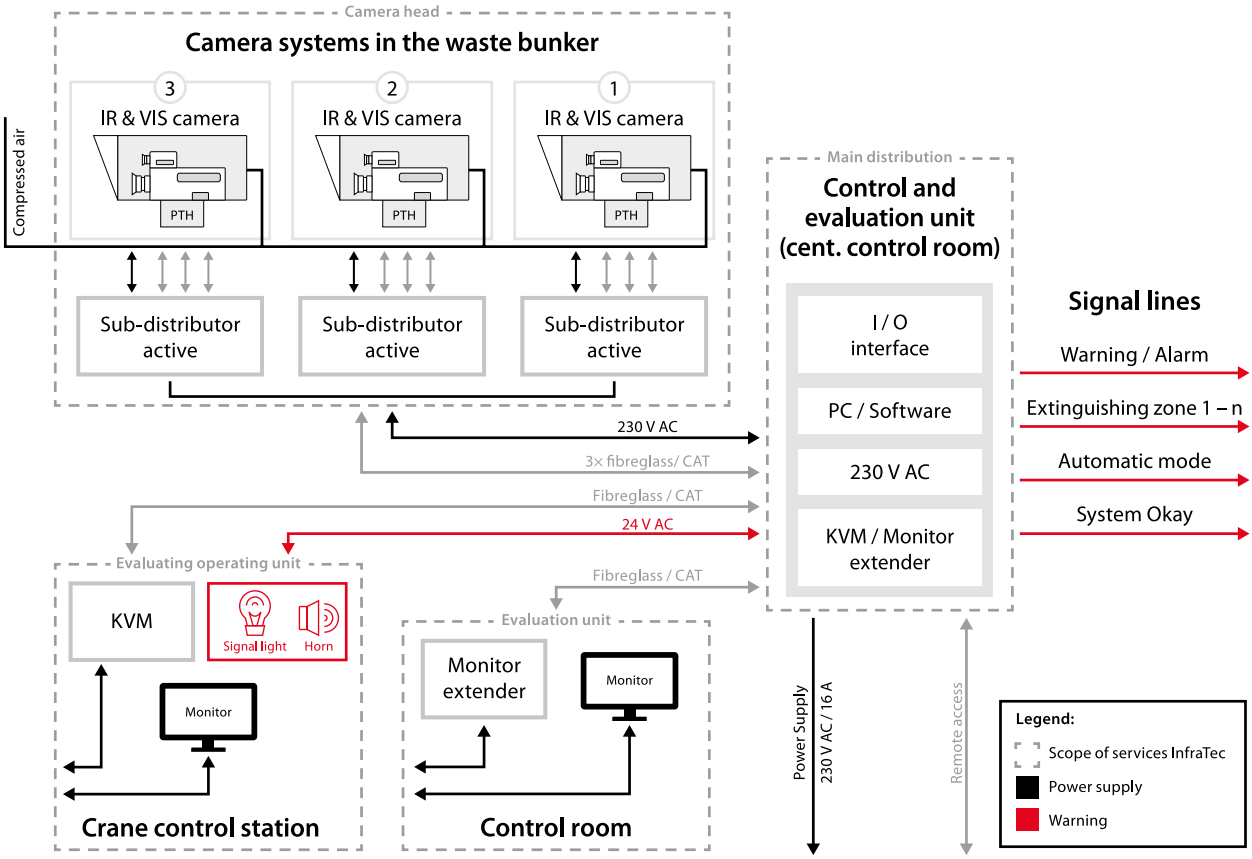
- Automatic alarm release when temperature values exceed critical thresholds
- Multi-level alarm functions with adjustable warning and alarm threshold values
- Analysis of long-term temperature trend with adjustable time basis
- Documentation of alarm situations for analysing fire formation
- Wide range of system versions due to modular design concept

Visual image with hot spot merging

* Depending on model

Customised System Design

- Suited for sustained continious operation 24 hours / day
- Transfer of thermal images from the camera to a central control room
- Flexible wiring technology (copper or fibre optics)
- Versatile solution for display and operation in the crane control station, the control room and / or the gate
- Uninterruptable power supply*
- System maintenance at PC in control cabinet (via remote control*)
- Large surface black body reference for atmosphere transmission compensation*



* optionally available

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