Orglmeister
Infrarot-Systeme

PYROsmart® waste

Waste bunker monitoring with infrared cameras and extinguishing systems

PYROsmart® waste detects critical temperature changes in waste bunkers. Because surface temperatures become hot before fires break out, infrared cameras – thermal imaging cameras – enable fire hazards to be detected early. Hotspots become "visible" in the thermal imaging of a monitored area before any smoke or fumes are evident. Infrared temperature monitoring has now become standard practice for preventive fire protection in waste incineration plants.
The PYROsmart® early fire detection system can pinpoint hotspots by knowing the 3D spatial geometry of a monitored area. This enables targeted, automatic cooling and/or precision extinguishing using connected fire-monitor extinguishers.
PYROsmart® waste is an effective and reliable fire prevention system for waste bunkers.

Automatic targeted extinguishing – operated by PYROsmart®

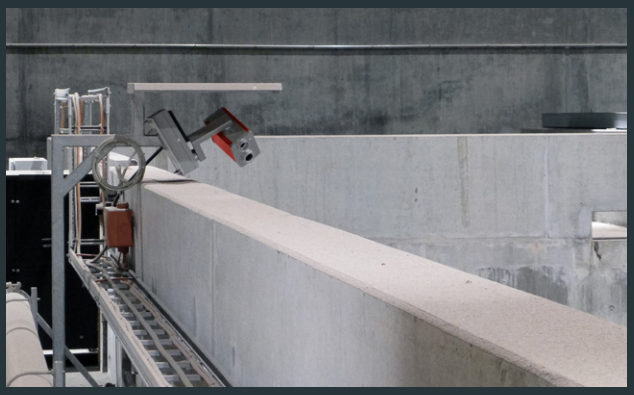
In the event of an alarm, PYROsmart® operates targeted fire-monitor extinguishers. This cools hotspots with pinpoint accuracy and/or extinguishes developing fires at an early stage. Interruptions to operations as well as any collateral damage are also prevented. The PYROsmart® extinguishing software determines optimum extinguishing strategies while also being capable of operating multiple fire-monitor extinguishers simultaneously.

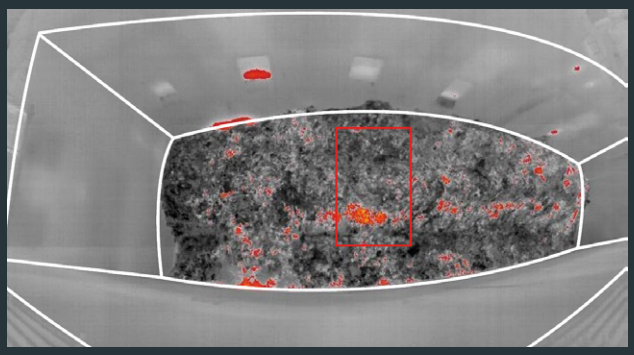
Patented thermal imaging, 3D spatial detection and IR autofocus

PYROsmart® waste scans waste bunkers to create one seamless thermal image. This “panoramic thermal image” displays and evaluates temperature distributions across the full monitored area. The thermal image is a full representation of the three-dimensional space: each measured temperature is assignable to an exact location within the space.

The infrared camera is equipped with autofocus making it ideal for viewing materials piled at varying heights and at varying distances. Surfaces of materials then remain in focus, even when bunker loads vary, enabling precise temperature measurement.

A high-resolution video camera complements the infrared camera. Switching between the two image types enables fire hazards to be better assessed. The 14x optical zoom function enables detailed viewing of even distant objects.





A thermal image shows the full area being monitored. Guide lines highlight the three-dimensional spatial structure.

Benefits and advantages

- Quick overview of the monitored areas by video and infrared panoramic imaging
- Early detection of potential fire hazards
- Precise localization of dangerous hotspots
- Transparent operation and option for early intervention by in-house fire protection services already in the event of pre-alarms
- Fully automatic operation of targeted cooling and/or extinguishing
- Minimum use of extinguishing agents
- Complete thermal documentation
- Automated event logging and alarm forwarding
- Reliable operation even in constant exposure to dust
- Compact, low-maintenance, updateable and extendable

PYROsmart® – properties and characteristics

	PYROsmart® FS pro	PYROsmart® waste	PYROsmart® FS eco
Areas of application	indoors & outdoors, large areas	waste bunkers (indoors) with varying fill levels	indoors, medium sized areas
Max. temperature measurement range	variable, e.g. -20° C – 630° C	-20° C – 120° C	-40° C – 550° C
Autofocus (infrared autofocus)	✓	✓	x
Video camera with zoom	✓	✓	x
Fully tiltable	✓	✓	✓
Panoramic evaluation/display	✓	✓	✓
FACP compatible alarm outputs	✓	✓	✓
Extinguishing control	✓	✓	✓
VdS device approval	✓	✓	✓
Dimensions (height x width x lenght) / weight	39 x 24 x 39 cm / 7,7 kg	39 x 24 x 39 cm / 7,7 kg	39 x 24 x 39 cm / 7,3 kg

PYROsmart® waste’s key advantage: detection, intervention and targeted extinguishing for effective fire prevention in waste bunkers and waste incineration plants.

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