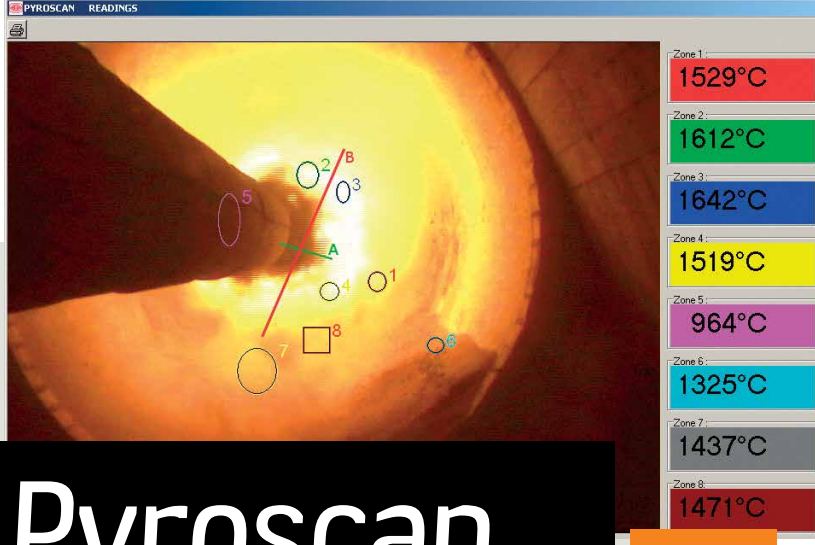
HGH Infrared Systems

PYROSCAN



→ Kiln burner thermal monitoring

Pyroscan

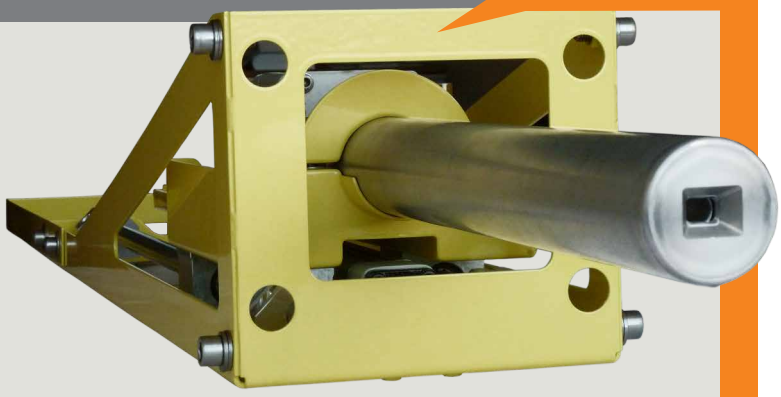
COMBUSTION | **THERMAL MONITORING**

INTRODUCTION

Pyroscan is a new generation Gigabit Ethernet pyrometric camera for monitoring the inside of rotary kilns or of clinker coolers. This camera enables the detection of any changes on the combustion and the visualization of clinker fall.The operator can instantly see impacts of burner adjustments, variation in raw meal composition or use of alternative fuel. He can also identify process problems, such as clinker avalanche or red rivers formation.

Each pixel of the image can be selected by the operator on the video image to measure temperatures, to follow their variations and to check changes in flame shape (flame length/width and black root length), etc.

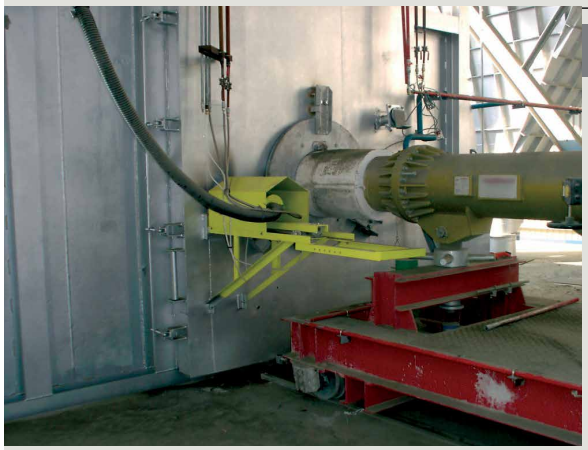
→ PYROSCAN



PRINCIPLE

Pyroscan is connected to a computer by a Gigabit Ethernet link associated with specific software displaying a high resolution and High Dynamic Range (HDR) thermal image of the burning zone (visualization and temperature measurements inside the kiln and inside the clinker cooler).

The camera head is water cooled and the viewing head front lens is kept clean by a continuous flow of purging air.

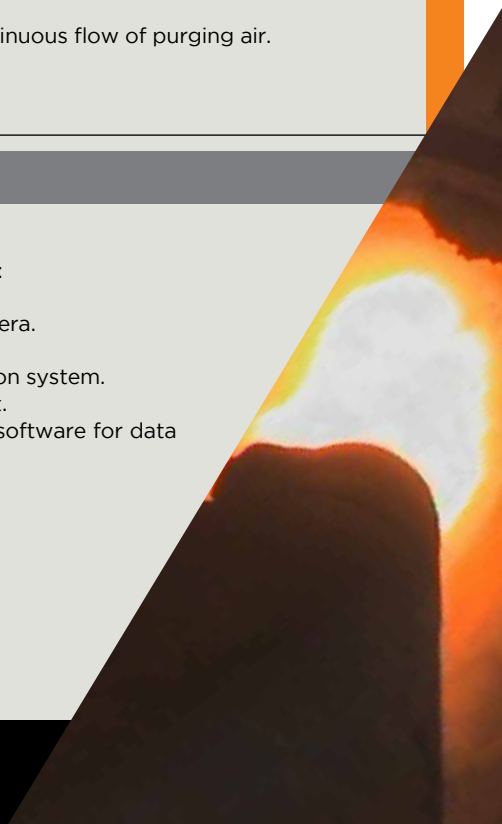


→ Pyroscan installed close to the kiln burner

CONFIGURATION

The Pyroscan equipment includes:

- A water cooled pyrometric camera.
- An air treatment unit.
- An automatic insertion/extraction system.
- A local electrical control cabinet.
- A PC with Windows dedicated software for data processing and display.

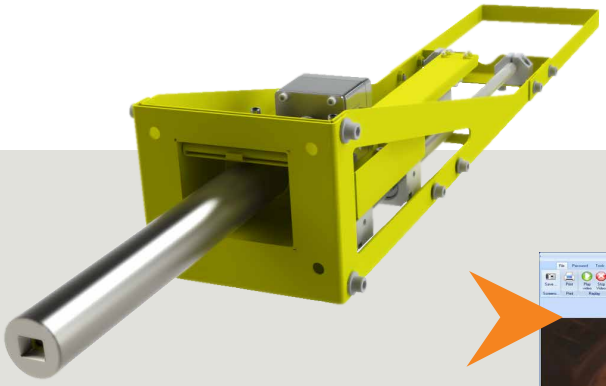


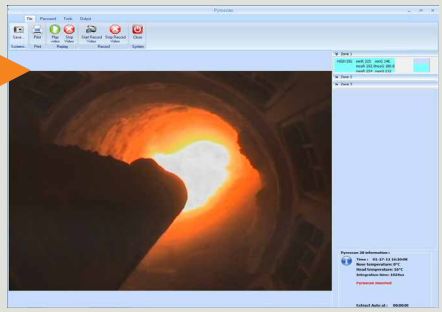
PYROSCAN

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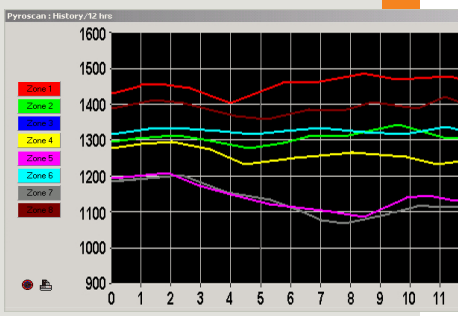
Pyroscan

COMBUSTION | **THERMAL MONITORING**





→ Flame visualization and temperature measurement



→ Analysis of historical data

OPTIONS

- 4-20 mA outputs
- Alarm dry contacts
- OPC client

ADVANTAGES

- High quality images with much more detail in both the dark and bright areas thanks to the full High Dynamic Range (HDR) thermal images
- Reliable temperature reading (minimized effect of dusty atmosphere)
- Visualization and temperature measurements of the clinker area
- Flame shape monitoring with user-defined analysis lines
- Monitoring of avalanches / red rivers inside the grate cooler
- Unlimited number of user-defined measurements points
- Historical database (video and temperature measurements)
- Comprehensive tool for burner adjustment, particularly for firing alternative fuels
- Video streaming over IP

TECHNICAL DATA

Field of view	62° horizontal x 48° vertical x 78° diagonal (alternatively 44° h x 33° v x 55° d)
Temperature measurement range	700 °C to 1800 °C
Color video camera	1296 x 966 pixels Gigabit Ethernet output High Dynamic Range (HDR) , dynamic > 120 dB
Insertion length	500 mm (other insertion lengths available on request)
PC with RJ45 and fiber optic inputs	
Electricity supply	100-240 V, 50/60 Hz, 500 W

Above information is subject to changes without notice

HGH Infrared Systems

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