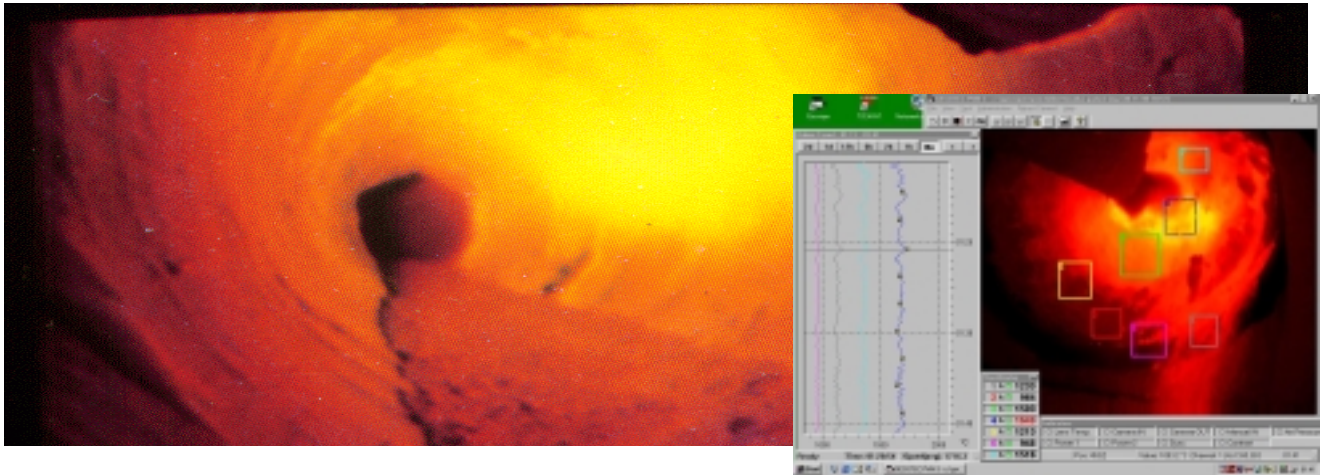


PYROVIPERTM

by GESOTEC[®] & SYN-FAB[®]



IMAGE MONITORING & PROCESSING WITH ENHANCED TEMPERATURE MEASUREMENT FOR KILNS & COOLERS



PYROVIPERTM is a series of rugged industrial imaging systems that provide state-of-the-art multi-spectral digital High Temperature-TV (infrared & visual wavebands) and enhanced multi-channel Thermography (two-dimensional Pyrometry).

PYROVIPERTM combines solid-state FPA sensor technology with a leading edge data acquisition system including a standard high-speed TCP/IP Network- Interface. This unique set of industrial imager components (known for reliability and ease of handling in hundreds of installations) give the operator the ability to observe process conditions in the kiln and/or in the cooler with great visual details while simultaneously accurately measuring the temperature of up to 48 areas of interest.

Any **PYROVIPERTM** system can any-time easily be upgraded to any level of **GESOTEC[®]**'s unique Temperature- and Video- Expert System Configuration **KTCx-2000** (see reverse page).

Advantages of PyroViper TM against conventional CCTV-Systems	Industrial Process
Continuous- & detailed observation of combustion conditions in the burning zone by "Infrared-TV". Accurate measurement of product- and refractory temperature (optional flame temperature). Advanced refractory management option in conjunction with a kiln shell temperature scanning system.	Rotary Kilns: Cement- & lime- production, Waste burning
Monitoring of the clinker- temperature distribution and the clinker- flow along the grates. Reliable "Red-River-Detection". Control of the blower efficiency and clinker bed depth.	Cement clinker coolers
Quantitative Observation & Control of heating uniformity-, product quality, and combustion. Control of Smelt-bed size & shape. Improved Boiler Performance, less Pollution, optimized fuel consumption.	Reheat furnaces & Boilers

A typical PyroViperTM system configuration consists of the following basic components

- Calibrated high precision solid-state smart sensor assembly with an enhanced two-channel "Pyrometer-Imager".
- Air-cooled stainless steel furnace optics, i.e. rugged lens assembly with patented "Bright Image Optical System".
- Heavy-duty air purged furnace wall-box, automatic-retract assembly, air filtration system with regulator assembly.
- Air-cooled industrial stainless steel camera housing, i.e. heat resistant protective sensor enclosure with "quick change back plate".
- Smart data acquisition controller & display unit with 2 x S-VGA signal output, digital PC-data-link through standard Ethernet-LAN.

GESOTEC[®] Automation, L.L.C.

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