



ThermaScope®

New digital technology providing you with perfect vision!

The next generation of furnace surveillance imaging has arrived...

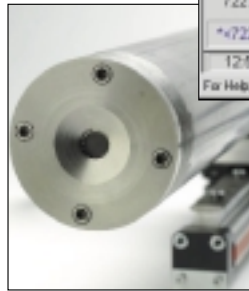
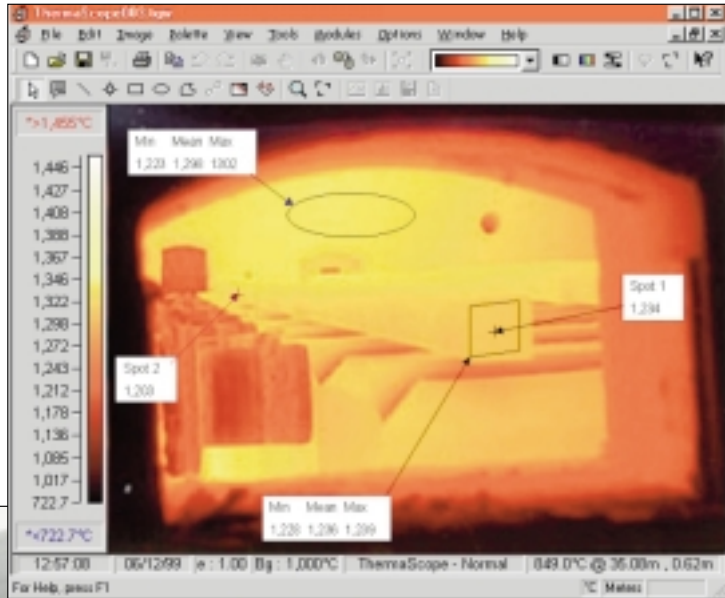
And it's more than just a few spots on your screen...

- **Real time**
- **All digital**
- **Fully quantified**
- **Radiometric**
- **Easy interfacing**
- **Solid state**
- **Remote support**
- **Water cooled**
- **High resolution**
- **Unlimited area measurements**
- **Zones, shapes, circles, spots, profiles**

And much more!

APPLICATIONS

- **Reheat furnace**
- **Slag detection**
- **Concast**
- **Blast furnace**
- **Coke oven**
- **DRI kiln**



It's complete imaging, measurement and control inside your **Process –**

It's *ThermaScope*®

ThermaScope® Infrared Camera

- **Real time infrared digital imaging and measurement**
- **High resolution focal plane array IR detector**
- **Remote controlled, fail safe pneumatic insertion/retraction**
- **No alignment inaccuracies, no delay, no optical table**
- **Patented calibration for accuracy**
- **Solid state – long term reliability you can depend on**

ThermaScope® Data Display Software

- **Digital image storage with time and date tag**
- **Differential temperatures, trending and prediction**
- **Unlimited regional and positional measurements**
- **Analogue and relay outputs to process control**
- **Multiple software tools – fine detail enhancement**

ThermaScope®

is installed through the wall of the furnace and will provide the plant operator with a live, calibrated picture of the process and burner temperatures.

Thermoteknix real-time signal processing measurement and storage software provides an unlimited number of temperature measurements as well as trending and alarming accessible through the entire plant.

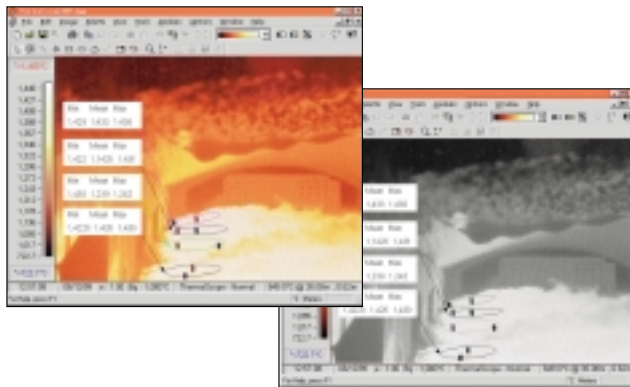
A wide variety of software tools for real time and recalled image analysis ensures any shaped area of interest may be defined in the image. Real time profiles, histograms and max, min and average temperatures can be shown on screen or output to external devices.

Images can be stored on hard disk, while dynamic image subtraction enables immediate identification of changes of flame pattern and product temperature.



The signal from the camera and the pneumatic controls are cabled to the ThermaScope® control box mounted within a short distance of the camera assembly. The control box is connected to a PC in the computer room for complete control and display of real time, live data of your furnace or steel plant.

The ThermaScope® software presents a live, black and white or "pseudo" coloured, calibrated temperature image in a window on your PC. 10 pre-defined palettes and an unlimited number of user definable palettes are available for optimum clarity and display.



Specifications

IR Camera	
Power Requirement	110 or 240 Volts (auto detecting)
Temperature Range	700 - 1400°C (1300 - 2550°F)
Detector	Uncooled Silicon focal plane array (FPA) 768 x 494 pixels Near infrared to 1.1 Microns
Lens	Fixed focus 0.2m ~ Infinity Effective aperture F24 approx. (set at calibration)
Field of View	Diagonal 90 degrees Horizontal 75 degrees Vertical 60 degrees
Response Time	Video Frame Rate
Housing	Site dependent on ambient temperatures
Water	Typically 10 l/min
Air Pressure	6 Bar 1.5 l/min
Camera Tube	Various lengths available depending on installation
Signal Processing	Real time ThermaGRAM® PCI video digitiser and Processor board



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Thermoteknix pursues a policy of ongoing product development and specifications are subject to change
Printed on environmentally friendly paper made with 100% chlorine free pulp. TS.5K 12/99