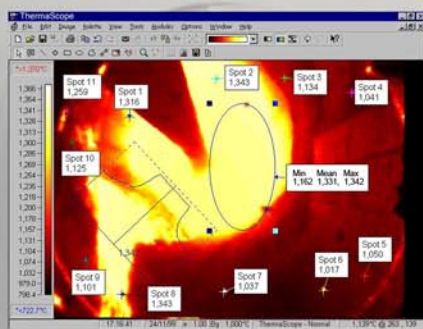


# ThermaScope® SLK

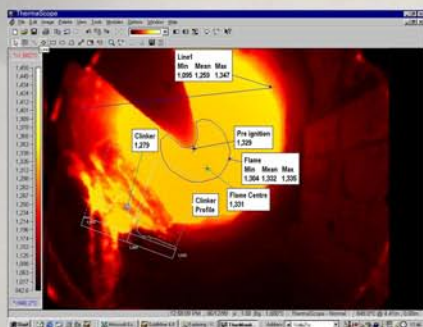
The next generation of kiln camera imaging has arrived and it's more than just a few spots on your screen.

**ThermaScope® SLK High Temperature Infrared Kiln and Cooler Camera improves efficiency, increases combustion control and reduces pollution.**

- Solid state infrared technology, superior image quality, temperature measurement, accuracy and outputs for pyro-processing control.
- Unmatched reliability, ease of use and service
- Powerful software with unlimited spot and area real time measurement
- Temperature versus Time and Alarm functions



Live thermal imaging with temperature measurement even in dusty kilns



**ThermaScope® SLK displays bright clear real time thermal images of high temperature processes and measures temperature at every point in the field of view. A key factor in efficient and safe kiln operation is the ability to accurately monitor the combustion process.**

**ThermaScope® SLK is a unique rugged instrument that sends real time thermal images and unlimited temperature data of the kiln or clinker bed to its control room PC processor and monitor. As fuel flow, operating conditions or fuel quality changes, **ThermaScope®** gives operators and control engineers a clear image and instantaneous temperatures at any spot or within any area of interest.**

Alarming will warn of unwanted temperature extremes and process variation whilst direct external outputs enable interfacing and automated control.

**ThermaScope® SLK has 4 principle camera components:**

- Focal plane array imaging and temperature sensor
- Water cooled stainless steel protective camera housing
- Automatic, fail-safe pneumatic camera insert/retract mechanism
- Camera interface, signal processing circuitry and services control unit.

**ThermaScope® Infrared Camera**

- Real time infrared digital thermal imaging and temperature measurement
- High Resolution focal plane array IR detector
- Remote controlled, fail safe pneumatic insertion/retraction
- Direct view with no alignment inaccuracies - simple field maintenance
- Patented calibration for accuracy even in dusty kilns
- Solid state - long term reliability you can depend on

**ThermaScope®** software gives the process engineer or control room operator advanced analysis tools with control interface signals for advanced closed loop control.

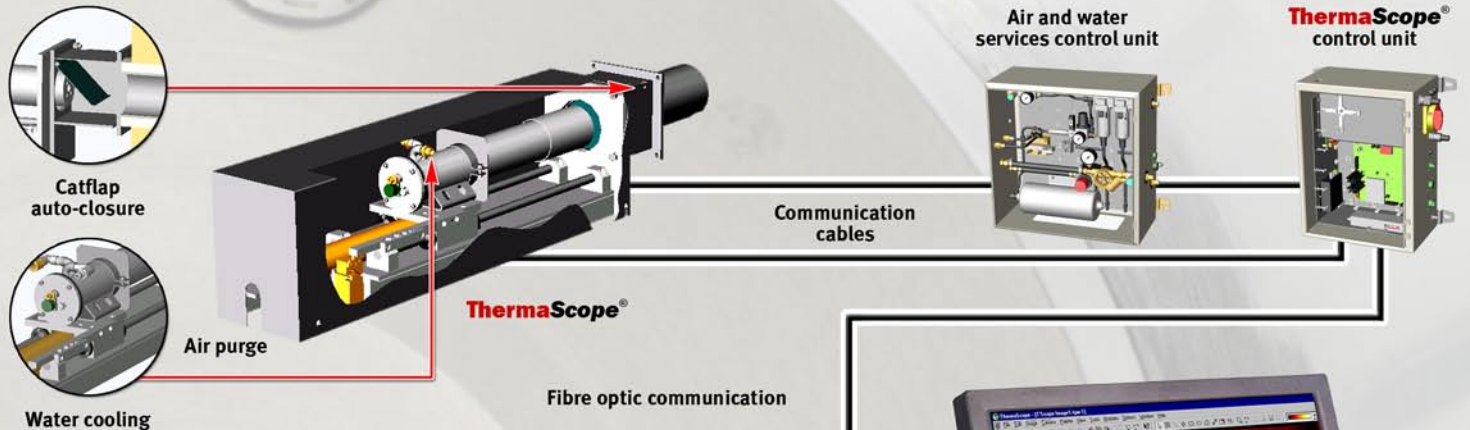
User friendly operator interface with unlimited number of simultaneous spot and area of interest measurements, thermal profiles, image storage, differential temperatures, live and historic data trending, highlights and much more.

“ A 1% improvement in fuel efficiency on a 3,000 TPD kiln will result in a payback period of less than 1 year for the complete **ThermaScope®** system ”

# ThermaScope® SLK

The next generation of kiln camera imaging has arrived and it's more than just a few spots on your screen.

ThermaScope® camera and pneumatic controls are cabled via control box to the ThermaScope® PCI processor in the control room PC for complete control and display of real time kiln data.



## ThermaScope® Software

- Spot temperatures (unlimited no.)
- Outlines (unlimited no.)
  - Freehand, rectangle, circle
  - ellipse, polyline
- Temperature differences
- Isotherms
- Temperature range zoom
- Palettes (10 standard & user defined)
- Drag & drop
- Alarms
- Magnify
- Profiles
- Rulers
- Histograms
- Labels
- Multiple image/palette display
- ASCII Data Export
- Variable time/temperature trending
- Undo/redo
- Help
- Microsoft OLE2 compliant for dynamic data exchange between applications
- Optional 4-20 mA outputs
- OPC (Microsoft OLE for process control) interface module

- Process control interface
- 4-20 mA outputs
- Alarms
- Local network



PC with ThermaScope® software

## ThermaScope® SLK Specification

Power requirement	110 or 240 Volts (auto detecting)
Temperature range	700-1800°C (1300-3270°F)
	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 (FOV)	3 Lens Options: Diagonal 82° 52° 37° Horizontal 70° 43° 30° Vertical 55° 33° 23°
Response time	Video frame rate
Water flow	Typically 1 l/min
Air pressure and flow	6 Bar 1.5 l/min
Camera tube housing	400 m water cooled jacket (custom length housings available)
Protection	Stainless steel protective safety cover Spring mounted retraction cover shield (Catflap)
Access hole	Requires 130mm diameter access hole.
Signal processing	Real time ThermaScope PCI video digitiser and processor board
Optional	Closed loop re-circulating water pump and chiller unit
Mounting requirement/weight	With wall sleeve (supplied) - weight 40kg

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Printed on environmentally friendly paper made with 100% chlorine free pulp

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