



Furnace Monitoring Camera for Cement Industry

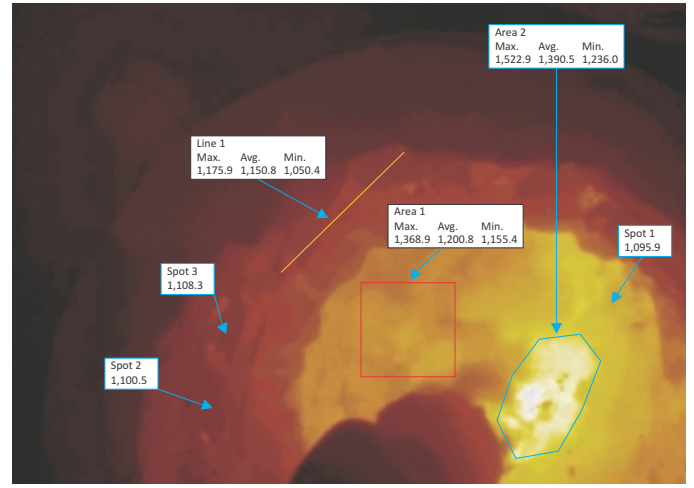
**HD Thermal Camera
for Kiln and Cooler**

**HD Visual Camera
for Kiln and Cooler**



CCD Camera

Image sensor	:	1/3" Super HD CCD
TV Line	:	Black and White 650 lines
Illumination	:	0.005Lux@F2.0
Image	:	Manual adjustable
Video output	:	Composite 1 [Vp-p] 75 (Ω)
Power	:	DC12V (±10%)

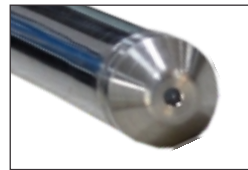


Thermal Camera

Image Sensor	:	HD CMOS Sensor
Temperature Range	:	700° C to 1800° C
Accuracy	:	0.3% of measure value + 1°
Resolution	:	768 x 576 pixels
Frame rate	:	25 Hz
Spectral Range	:	0.85 to 1.1μm
Connectivity	:	Ethernet/USB

Pinhole lens

Lens length	:	820 mm & 1100 mm
Angle of view	:	Straight view HxVxD 67°, 56°, 81° Elbow view 45°, 60°
Mount	:	CS
Focus	:	Manual Adjustable
Length	:	820 mm



Straight View



Angle View

Mounting, Cooling and Retraction System

COOLING

- Water Cooled Lens Tube
- Vortex cooled Camera Chamber

PROTECTION

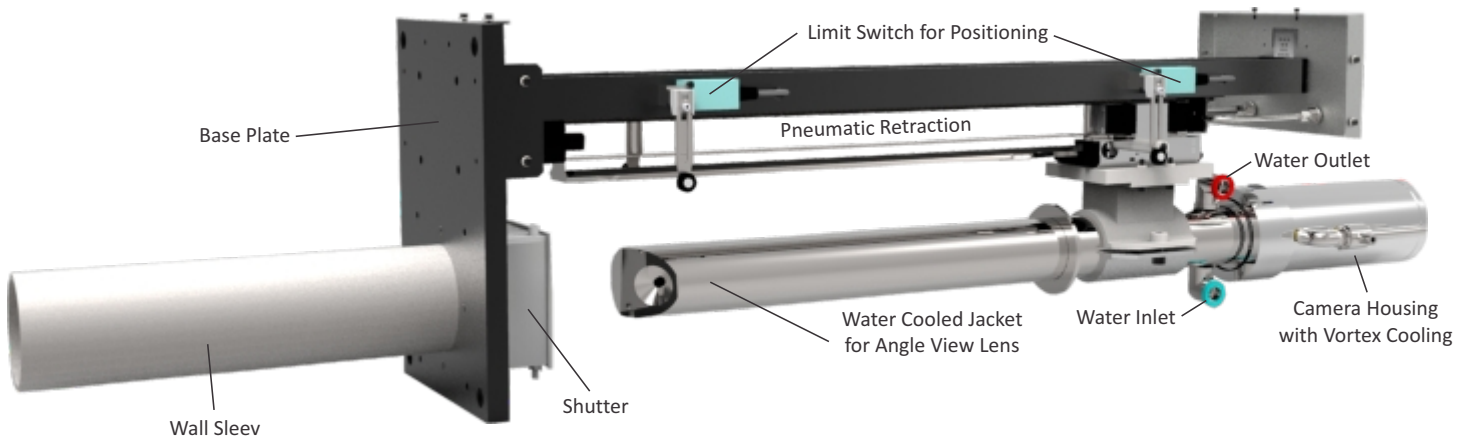
- Auto Retraction and Shutter

PURGING

- Air Purged

RETRACTION

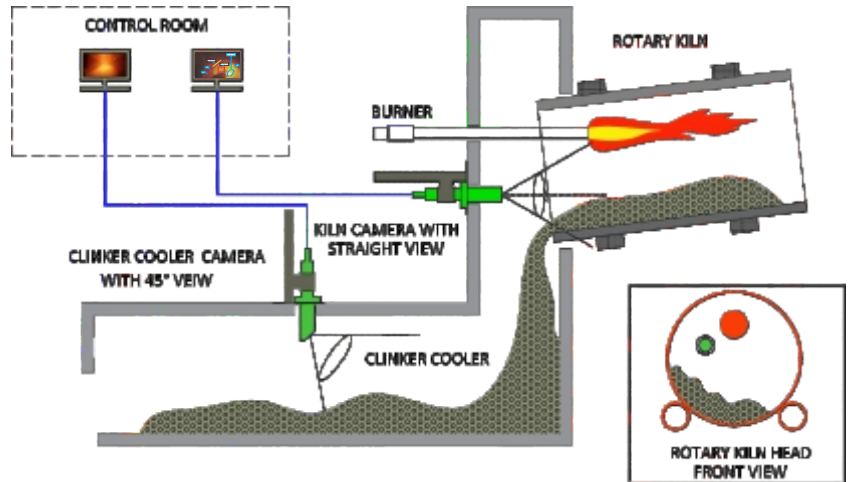
- Pneumatic Cylinder



Control Panel with Pneumatic System



- PLC
- HMI
- Air Filter
- Mist Separator
- Pressure Switch
- Speed Controller
- Pressure Regulator
- Non Return Valve



Model	Specification
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Klin Burning Zone

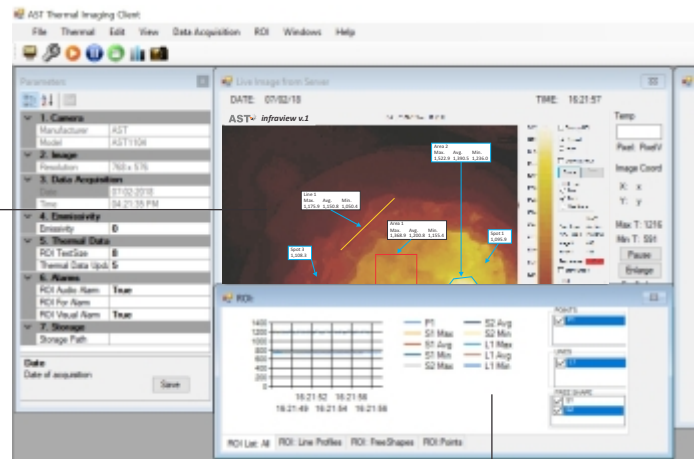
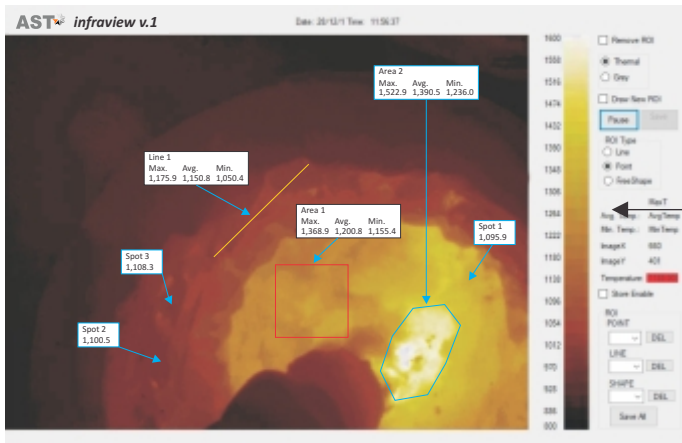
TFV-750	Straight View Visual Camera
TE-750	Straight View Thermal Camera

Cooler

TFV-750/OV	Elbow View Visual Camera
TE-750/OV	Elbow View Thermal Camera

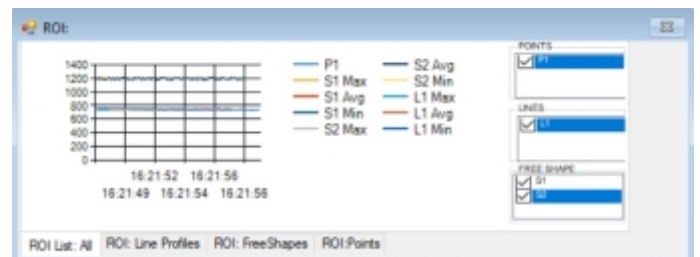
InfraView

AST INFRAVIEW Software allows you to control the camera and record, view, manipulate and store the captured video / image as well as measured temperature data. This real time software allows simple and fast parameterization for documentation of the temperature data optimizing process control. The modular Windows software INFRAVIEW is customizable as per requirement.



Special Features

- Configurable ROI's : point, line, free shape
- Histogram and isotherm visualization
- Hot and cold spot detection
- Color pallet scaling
- Trend charts
- Alarm output
- Video and Image export
- Server client configuration

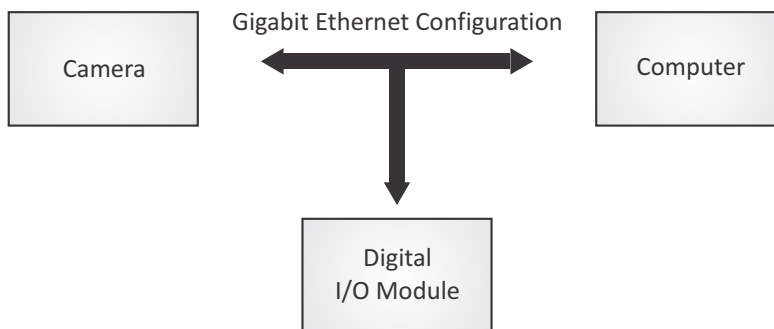


I/O Module

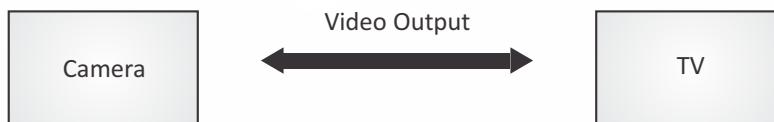


- Multi Function, Multi-channel module
- Dual ethernet 10/100 ports with built-int switch enables daisy-chain networking
- Four analog output (4-20mA) channels (16 bit DACS) to drive remote instruments, controllers, recorders
- Four discrete Input/Output Channels
- Slim 22.5 mm housing with plugable terminals
- Din-rail mounting

Typical Connection Diagram Thermal Camera



Typical Connection Diagram Visual Camera



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