

# PRODUCT GUIDE

OUR INSTRUMENTATION AT A GLANCE  
QUALITY CUSTOMER SOLUTIONS

**LAND**  
**AMETEK**<sup>®</sup>  
PROCESS & ANALYTICAL INSTRUMENTS









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## AMETEK LAND HAS BEEN MANUFACTURING PRECISION MEASUREMENT INSTRUMENTATION SINCE 1947.

We are specialists in non-contact temperature measurement and combustion monitoring with applications across diverse industries such as steel and glassmaking, electricity generation and cement manufacture.

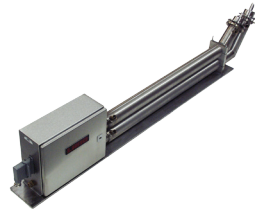
As part of AMETEK Process & Analytical Instruments Division since 2006, our customers benefit from the worldwide AMETEK sales and service team.

PRODUCT KEY		Fixed Spot Thermometers
		Portables
		Calibration Services
		Linescanning
		Process Imaging
		Combustion & Emission Monitoring

### STEEL

#### APPLICATION DEDICATED

Single spot non-contact thermometers designed for specific applications. Systems used: Stove Dome, Ladle Safety, Ladle Monitoring, Spray Chamber Probe, Furnace Temperature System, Understrip Temperature System, Roll Nip System, Galvanneal Strip Thermometer, Slag Detection System (outside of the US).



#### LSP-HD

High speed linescanner providing detailed thermal images. LSP-HD 11 used at the caster exit; LSP-HD 10 used at the crop shear, rougher, and finisher; LSP-HD 21 used at the coiler, continuous annealing and hot dip galv line snout; LSP-HD 61 used at the top roll.



#### SPOT

Single spot non-contact pyrometers with multiple operating modes and outputs. M100 used at caster exit, crop shear and rehear furnace and R100 for heat treatment. In hot rolling mills, M100 used at rougher and finisher; M160 at pre coiler and coiler; and R100 at descaler, rougher and finisher.



#### ARC IMAGER

Low temperature, rugged process thermal imager. Used for ladles, refractory wear and safety.



#### SYSTEM 4

Single spot non-contact pyrometers with high accuracy and quick response. M05 model used for the blast furnace tap measurement; M1, R1, U1, V1 used for the caster exit, crop shear, rougher and finisher; M2 and M3 used at the coiler; M2 and U2 used at the continuous annealing line; and M1 Target Orbiter used at the Stelmor coiler.



#### 4500 MkIII

The best opacity monitor for compliance measurements to PS-1 and ASTM D6216. Installed on the stack or on a duct leading to the stack.



#### CYCLOPS L

Handheld non-contact spot pyrometers with high accuracy. C100L used in coke oven battery flues; C055L used for the blast furnace iron stream; C390L used for the rehear furnace using dirty fuels.



#### NIR IMAGER

High temperature process imager providing high resolution images. Used at the caster exit and crop shear.





### NIR-B

Short wavelength non-contact borescope thermal imager with high resolution images and through-the-wall design to provide a wide 90 degree view. Used in natural gas fired reheat furnaces.



### IQ SERIES/SOLONET

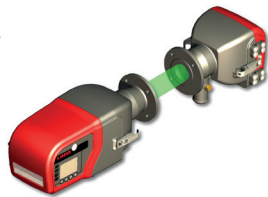
Single spot thermometers with high accuracy and are cost efficient. IQ R and IQ 1 used at the caster exit, crop shear, rougher and finisher; IQ 2 used for continuous annealing lines.



## ALUMINIUM

### 4200+

Accurate and stable opacity monitor for non-compliance applications. Used for stack gas emissions.



### SPOT AL EQS

Single spot non-contact pyrometers with three measurement modes for extrusion, quench and strip. Used at extruder, quench and strip mills.



### 4650-PM

Continuous measurements of low-level particulate matter (PM) concentration in stacks and ducts where there are no condensed water droplets. Can be used as a PM-CEMS or PM-CPMS.



### ARC IMAGER

Low temperature, rugged process thermal imager. Used in the cold rolling mill.



## PLASTICS

### LANCOM 4

Portable gas analyzer featuring up to 9 sensors for emissions measurement and combustion optimization. Used for stack emission monitoring.



### LSP-HD

High speed linescanner providing detailed thermal images. LSP-HD 60 used for thermoforming; LSP-HD 61 used for extruders and PET Preforms; and LSP-HD 71 used for thin plastics.



# PRODUCT GUIDE

## PRODUCT KEY



Fixed Spot Thermometers



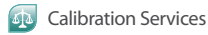
Linescanning



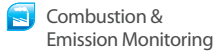
Portables



Process Imaging



Calibration Services



Combustion & Emission Monitoring

**"THE CYCLOPS FAMILY IS THE INDUSTRY LEADING STANDARD FOR HIGH QUALITY PORTABLE NON-CONTACT PYROMETERS."**

## GLASS

### APPLICATION DEDICATED

Single spot non-contact pyrometers designed for specific applications. Model FG for forehearth; FLT5A for floatline lehrs; Vapor Deposition Monitoring - VDT.



### IQ SERIES/SOLONET

Single spot thermometers with high accuracy and are cost efficient. IQ 5 used at the tin bath.



### SYSTEM 4

Single spot non-contact pyrometers with high accuracy and quick response. M1 used in the melt tank; M1 Fiberoptic used at the refiner, canal and gob; M5 and U5 used at the tin bath.



### CYCLOPS L

Handheld non-contact spot pyrometers with high accuracy. C100L used for the melt tank port arch and bridge wall.



### LSP-HD

High speed linescanner providing detailed thermal images. LSP-HD 50 used on the lehr and for tempering operations.



### 4650-PM

Continuous measurements of low-level particulate matter (PM) concentration in stacks and ducts where there are no condensed water droplets. Can be used as a PM-CEMS or PM-CPMS.



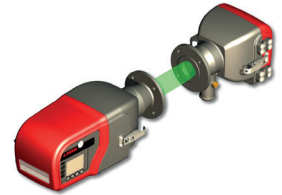
### NIR-B GLASS

Short wavelength non-contact borescope thermal imager with high resolution images and through-the-wall design to provide a wide 90 degree view. Used in the melt tank.



### 4200+

Accurate and stable opacity monitor for non-compliance applications. Used for stack gas emissions.



### 4500 MkIII

The best opacity monitor for compliance measurements to PS-1 and ASTM D6216. Used for stack gas emissions.



### LANCOM 4

Portable gas analyzer featuring up to 9 sensors for emissions measurement and combustion optimization. Used for stack emission monitoring.



### WDG 1200-1210

In situ oxygen probe for combustion optimization, featuring integrated control and display electronics. Mounted on the stack.

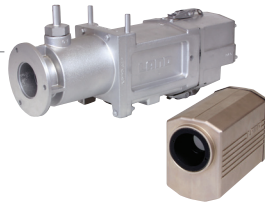




## POWER GENERATION

### APPLICATION DEDICATED

Single spot non-contact pyrometers designed for specific applications. CDA used for coal fired boilers.



### HotSpotIR

High speed linescanner which detects small hot inclusions on coal conveyors.

Also available in ATEX versions.



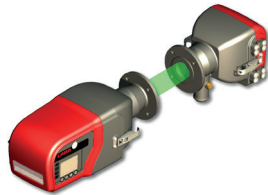
### FTI-EB

A process thermal imager used for coal fired boilers to check boiler tube and refractory deterioration and burner performance.



### 4200+

Accurate and stable opacity monitor for non-compliance applications. Used in ducts leading to the stack.



### 4500 MkIII

The best opacity monitor for compliance measurements to PS-1 and ASTM D6216. Installed on the stack or on a duct leading to the stack.



### 4650-PM

Continuous measurements of low-level particulate matter (PM) concentration in stacks and ducts where there are no condensed water droplets. Can be used as a PM-CEMS or PM-CPMS.



### 9100

Cross stack, in-situ carbon monoxide monitor for direct continuous measurement to provide efficient combustion control of any boiler system.



### LANCOM 4

Portable gas analyzer featuring up to 9 sensors for emissions measurement and combustion optimization. Used for stack emission monitoring.



### LANCOM 200

A portable sulphuric acid dewpoint temperature analyzer used to minimize acid corrosion in the stack or downstream of the air preheater in oil-fired boilers.



### MILLWATCH/ SILOWATCH

Carbon monoxide monitors for early warning of possible fires in coal mills and storage silos.



### WDG 1200-1210

In-situ oxygen probe for combustion optimization, featuring integrated control and display electronics. Mounted on the stack or downstream of particulate removal equipment.



# PRODUCT GUIDE

## PRODUCT KEY



Fixed Spot Thermometers



Portables



Calibration Services



Linescanning



Process Imaging



Combustion & Emission Monitoring

**"THE LATEST TECHNOLOGIES UTILIZED IN THE SPOT FAMILY MAKE NON-CONTACT TEMPERATURE MEASUREMENT ACCURATE, FLEXIBLE AND EASY TO USE."**

## FORGING/HEAT TREATMENT

### IQ SERIES/ SOLONET

Single spot thermometers with high accuracy and are cost efficient. IQ 1 used at the forging press.



### SPOT

Single spot non-contact pyrometers with multiple operating modes and outputs. Range of single and multiple wavelength models for use at reheat furnace, forging press, induction heating and flame hardening.



### SYSTEM 4

Single spot non-contact pyrometers with high accuracy and quick response. M1 and R1 pyrometers used at the forging press; R1 and U1 used in the reheat furnace.



### CYCLOPS L

Handheld non-contact spot pyrometers with high accuracy. C100L is used at the forging press and reheat furnace.



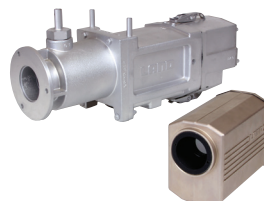
### NIR-B

Short wavelength non-contact borescope thermal imager with high resolution images and through-the-wall design to provide a wide 90 degree view. Used in natural gas fired reheat furnaces.



### RT8A

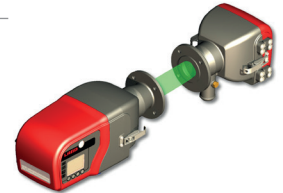
Single spot non-contact pyrometers designed for use in roadstone and tarmac production for moving materials, webs or inaccessible objects.



## MINERALS

### 4200+

Accurate and stable opacity monitor for non-compliance applications. Used for stack gas emissions.



### 4500 MkIII

The best opacity monitor for compliance measurements to PS-1 and ASTM D6216.



### ARC IMAGER

Low temperature, rugged process thermal imager. Used for critical vessel refractory monitoring.



### LANCOM 4

Portable gas analyzer featuring up to 9 sensors for emissions measurement and combustion optimization. Used for stack emission monitoring.



### MILLWATCH/ SILOWATCH

Carbon monoxide monitors for early warning of possible fires in mills and storage silos.





## POLYSILICON

### SYSTEM 4

Single spot non-contact pyrometers with high accuracy and quick response. The R1 Fiberoptic used for monitoring ingot growth. Available in ATEX versions.



### NIR IMAGER

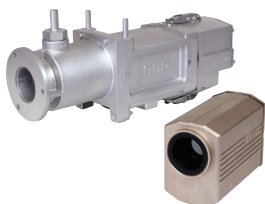
High temperature process imager providing high resolution images. Used for monitoring ingot growth.



## INCINERATORS

### CDA

Single spot non-contact pyrometers, durable and long-lasting, used for furnace atmosphere measurements.



### FTI-EB

A process thermal imager used to see through combustion products inside the furnace atmosphere.



## PETROCHEMICALS / HYDROGEN REFORMING

### NIR-B 3XR

Short wavelength non-contact borescope thermal imager with high resolution images and through-the-wall design to provide a wide 90 degree view. Used for tube wall measurement in reformers. ATEX and IECEx approved.



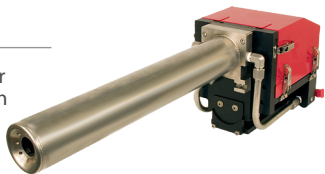
### CYCLOPS L

Handheld non-contact spot pyrometers with high accuracy. 390L used in heaters and reformers for tube measurement.



### FTI-EB

A process thermal imager used for tube measurement in heaters with dirty fuels.



### ARC IMAGER

Low temperature, rugged process thermal imager. Used for critical vessel refractory and constant flare stack flame monitoring. Available in ATEX versions.



### LANCOM 4

Portable gas analyzer featuring up to 9 sensors for emissions measurement and combustion optimization. Used for stack emission monitoring.



## PAPER / NON WOVENS

(CONTINUED ON NEXT PAGE)

### HotSpotIR

High speed linescanner which detects small, hot objects; high speed alarms. Used for supercalender roll cover monitoring.



### LSP-HD

High speed linescanner providing detailed thermal images. LSP-HD 60 used at the dryer exit and for supercalender roll cover monitoring.

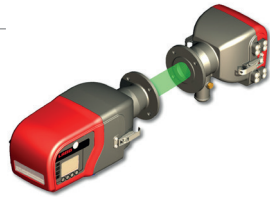


# PRODUCT GUIDE

## PAPER/NON WOVENS

### 4200+

Accurate and stable opacity monitor for non-compliance applications. Used in the stack.



### 4500 MkIII

The best opacity monitor for compliance measurements to PS-1 and ASTM D6216. Used for stack gas monitoring.



### 4650-PM

Continuous measurements of low-level particulate matter (PM) concentration in stacks and ducts where there are no condensed water droplets. Can be used as a PM-CEMS or PM-CPMS.



### LANCOM 4

Portable gas analyzer featuring up to 9 sensors for emissions measurement and combustion optimization. Used for gas stack emissions.



### WDG 1200-1210

In situ oxygen probe for combustion optimization, featuring integrated control and display electronics. Mounted on the stack or downstream of particulate control equipment.



## CEMENT

### HotSpotIR

High speed linescanner which detects small hot clinker inclusions on conveyors.



### 4500 MkIII

The best opacity monitor for compliance measurements to PS-1 and ASTM D6216.



### SPOT

Single spot non-contact pyrometers with multiple operating modes and outputs. R100 used at burning zone.



### 4650-PM

Continuous measurements of low-level particulate matter (PM) concentration in stacks and ducts where there are no condensed water droplets. Can be used as a PM-CEMS or PM-CPMS.



### NIR-B

Short wavelength non-contact borescope thermal imager with high resolution images and through-the-wall design to provide a wide 90 degree view. Used in the kiln burning zone.



### LSP-HD

High speed linescanner providing detailed thermal images. LSP-HD 60 used for rotary kiln shell.



### MILLWATCH/ SILOWATCH

Carbon monoxide monitors for early warning of possible fires in mills and storage silos.



**LAND**  
**AMETEK**

**Land Instruments International**  
Stubley Lane, Dronfield  
S18 1DJ  
United Kingdom

Tel: +44 (0) 1246 417691  
Email: [land.enquiry@ametek.com](mailto:land.enquiry@ametek.com)  
[www.landinst.com](http://www.landinst.com)

**AMETEK Land - Americas**  
150 Freepoint Road,  
Pittsburgh, Pennsylvania, 15238  
United States of America

Tel: +1 (412) 826 4444  
Email: [land.enquiry@ametek.com](mailto:land.enquiry@ametek.com)  
[www.ametek-land.com](http://www.ametek-land.com)

**AMETEK Land China Service**  
Part A1 & A4, 2nd Floor Bldg. 1  
No. 526 Fute 3rd Road East,  
Pilot Free Trade Zone 200131  
Shanghai, China

Tel: +86 21 5868 5111 ext 122  
Email: [land.enquiry@ametek.com](mailto:land.enquiry@ametek.com)  
[www.landinst.com](http://www.landinst.com)

**AMETEK Land India Service**  
Divyasree N R Enclave, Block A,  
4th Floor, Site No 1, EPIP Industrial Area  
Whitefield, Bangalore- 560066  
Karnataka, India

Tel: +91 - 80 67823240  
Email: [land.enquiry@ametek.com](mailto:land.enquiry@ametek.com)  
[www.landinst.com](http://www.landinst.com)