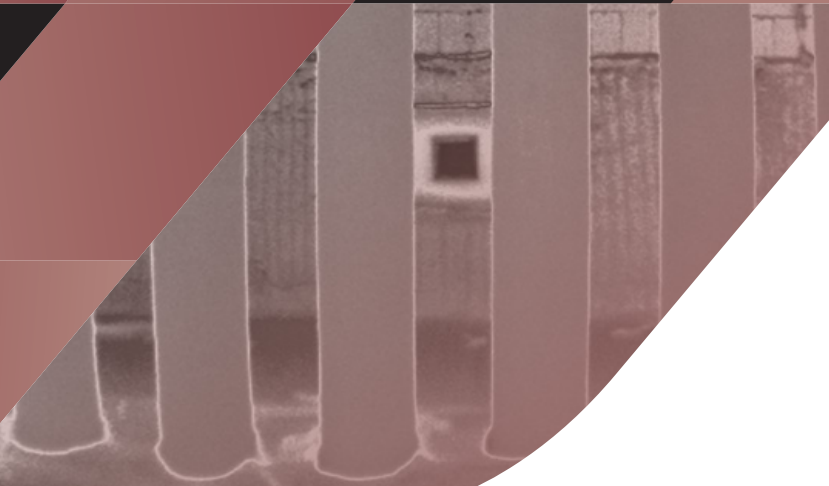
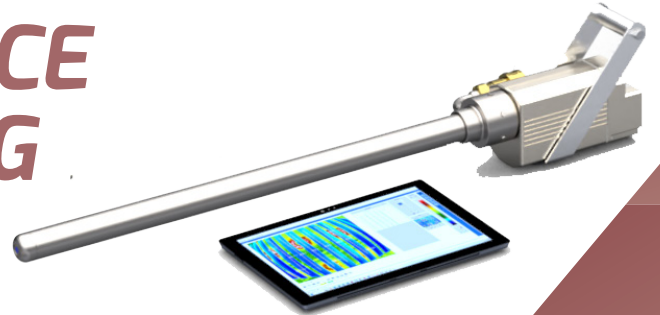


# *PORTABLE FURNACE THERMAL IMAGING SYSTEM*

THERMAL IMAGING SOLUTIONS



**LAND**  
**AMETEK®**



QUALITY CUSTOMER SOLUTIONS

# PORTABLE FURNACE THERMAL IMAGING SYSTEM

THERMAL IMAGING SOLUTIONS

## AMETEK LAND HAS BEEN BUILDING PRECISION MEASURING EQUIPMENT SINCE 1947.

We are specialists in non-contact temperature measurement and combustion monitoring with our products finding applications across diverse industries such as steel, glass, hydrocarbon processing, power 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.

To optimise the operation of furnaces the temperature within the furnace must be measured frequently and the temperature distribution monitored. In addition to using pyrometers to take point measurements, high-resolution thermal imaging systems are also available as fixed installations or as portable units.

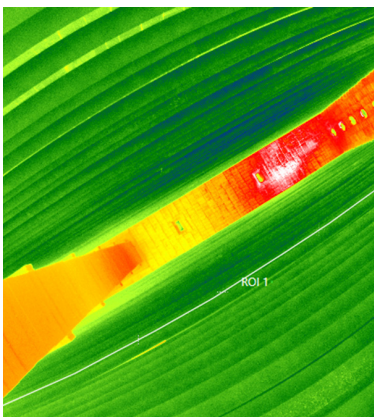
For taking quick in furnace measurements and undertaking surveys, across multiple port holes, the easy to handle portable furnace thermal imaging system is ideal, when used with AMETEK Land's borescopes.

This portable system includes a battery power supply and air connection for purging the

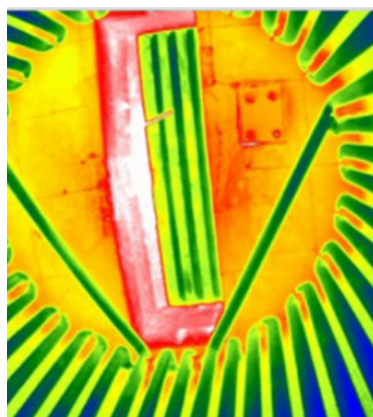
imager whilst collecting short clips of the process. Plus, the advanced IMAGEPro thermal imaging software is installed on a Windows® tablet and enables extensive on-site real-time monitoring and analysis of the thermal data, with detailed evaluation being carried out at a later time.

A portable furnace thermal imaging system is the perfect tool to perform regular furnace inspections and extensive surveys. This supports on-site monitoring and analysis to prolong furnace lifetimes, optimize efficiency, reduce energy consumption, and improve stock and furnace temperatures.

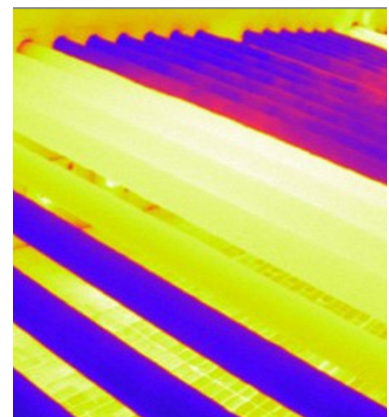
### THERMAL FURNACE SURVEYS ▼



Top fired Steam Methane  
Reformer (SMR)



Cylindrical SMR



Steam Cracker

# SPECIFICATION & DESIGN



## 1: AIR SUPPLY & FILTER

Connection of plant instrument air supply

## 2: EASY TO HANDLE

Integrated handle enables easy carrying of the system

## 3: BACKPACK

Durable pack for transporting the kit around the site and storing the heat protection shield

## 4: HEAT PROTECTION SHIELD

Protects the operator from heat radiation and hot furnace air

## 5: HIGH ACCURACY PROBE

Designed for quick insertion inspections in multiple furnace locations

## 6: TABLET

Portable Windows® tablet provides full IMAGEPro thermal imaging software functionality for data analysis and capture

## 7: BATTERIES AND ACCESSORIES

1x 97 Wh battery for instrument power.

## TYPICAL APPLICATIONS

Thermal furnace surveys

Furnace service inspections

Start-up and drive down control

Energy consumption reduction

Emission control and optimisation

Universal furnace monitoring and optimisation

Preparation for stationary furnace thermal imaging camera installations

## PORTABLE SYSTEM



## FEATURES & BENEFITS

**Fully Portable System** - Easy to handle and operate system for flexible on-site furnace measurements and surveys.

**Battery Powered** - The system provides the power for the imager, while the tablet is used for monitoring, analysing and capturing of data.

**Advanced IMAGEPro Thermal Imaging Software** - Provides a full online view into the furnace during the measurements on-site and enables data capture for further analysis.

**Multiple wavelengths and temperatures available** - Combines with market leading advanced thermal imaging borescopes to provide multiple temperature and spectral ranges for different furnace applications and locations.

**Protection & Safety** - The easy to handle and carry system can be easily operated by two people, working at a safe distance to the furnace, while the integrated heat shield protects the operator during furnace measurements.

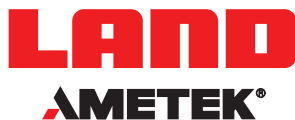
# PORTABLE FURNACE THERMAL IMAGING SYSTEM

THERMAL IMAGING SOLUTIONS

## SPECIFICATIONS

<b>Key Components:</b>	Portable unit Power-Battery Pack Instrument Air Filter Unit Purging Air Camera Hose (2 m / 79") Camera Power Connection Cable (2 m / 79") Ethernet Camera Cable (5 m / 197") Windows® Tablet - IMAGEPro pre-installed Pelican Case	
<b>Available Models (Camera Combinations):</b>	NIR-B-640-600/2000C-90/2 NIR-B-640-600/2000C-44/2 MWIR-B-640-300/1200C-90/2 - LF MWIR-B-640-300/1200C-90/2 - HF MWIR-B-640-500/1800C-90/2 - LF MWIR-B-640-500/1800C-90/2 - HF	NIR-B-2K-600/1000C-95/2 NIR-B-2K-750/1250C-95/2 NIR-B-2K-800 /1400 -95/2
<b>Pelican Case Dimensions (WxDxH):</b>	1186 x 492 x 222 mm / 47.7 x 19.3 x 8.7 " (without back back)	
<b>Imager &amp; Shield Dimensions:</b>	954 x 400 x 250 mm / 37.6 x 15.7 x 9.8 " (camera and shield assembly )	
<b>Imager Probe Length:</b>	2 ft / 640 mm (instrument probe)	
<b>Tablet Dimensions:</b>	314 x 207 x 24.5 mm / 12.4 x 8.1 x 1"	
<b>Instrument Air Connection:</b>	1/2" BSP female or 1/2" NPT female	
<b>Instrument Air Specifications:</b>	Max. air temperature at inlet 40 °C / 104 °F 400 l/min at 1200 °C / 2192 °F applic. temperature <i>This equipment is not designed for permanent installation. Insertion time will depend on site conditions.</i>	
<b>Max. Recommended Process Temperature:</b>	1200 °C / 2372 °F	
<b>Max. Camera Probe Tip Temperature:</b>	85 °C / 185 °F - NIR-B 60 °C / 140 °F - MWIR-B	
<b>Battery Capacity:</b>	One 97 Wh power bank to power the instrument	
<b>Battery Life:</b>	Max. 11 hours (Imager power only)	
<b>Operating Temperature (Ambient):</b>	0 to 60 °C / 32 to 140 °F	

THE PORTABLE FURNACE THERMAL IMAGING SYSTEM IS THE PERFECT TOOL TO PERFORM REGULAR FURNACE INSPECTIONS AND EXTENSIVE SURVEYS. THE EASY TO HANDLE PORTABLE UNIT, COMBINED WITH A RANGE OF THERMAL IMAGING BORESCOPES, ENABLES EXTENSIVE FURNACE PROCESS ANALYSIS, CONTROL AND OPTIMISATION EVEN IN HARSH ENVIRONMENTAL CONDITIONS.



### CONTACT US



[www.ametek-land.com](http://www.ametek-land.com)



[land.enquiry@ametek.com](mailto:land.enquiry@ametek.com)



We are fully committed to Quality Assurance. See all our accreditations at [AMETEK-LAND.COM/QUALITY](http://AMETEK-LAND.COM/QUALITY)