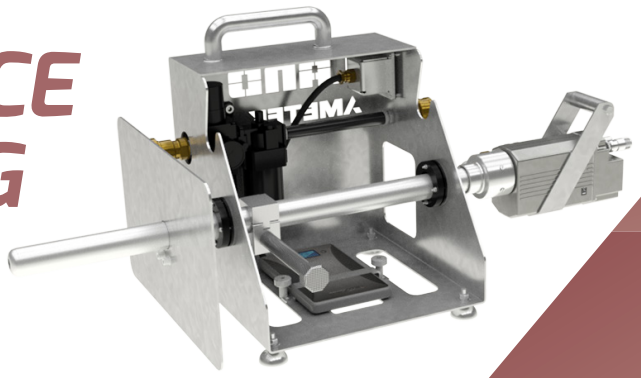
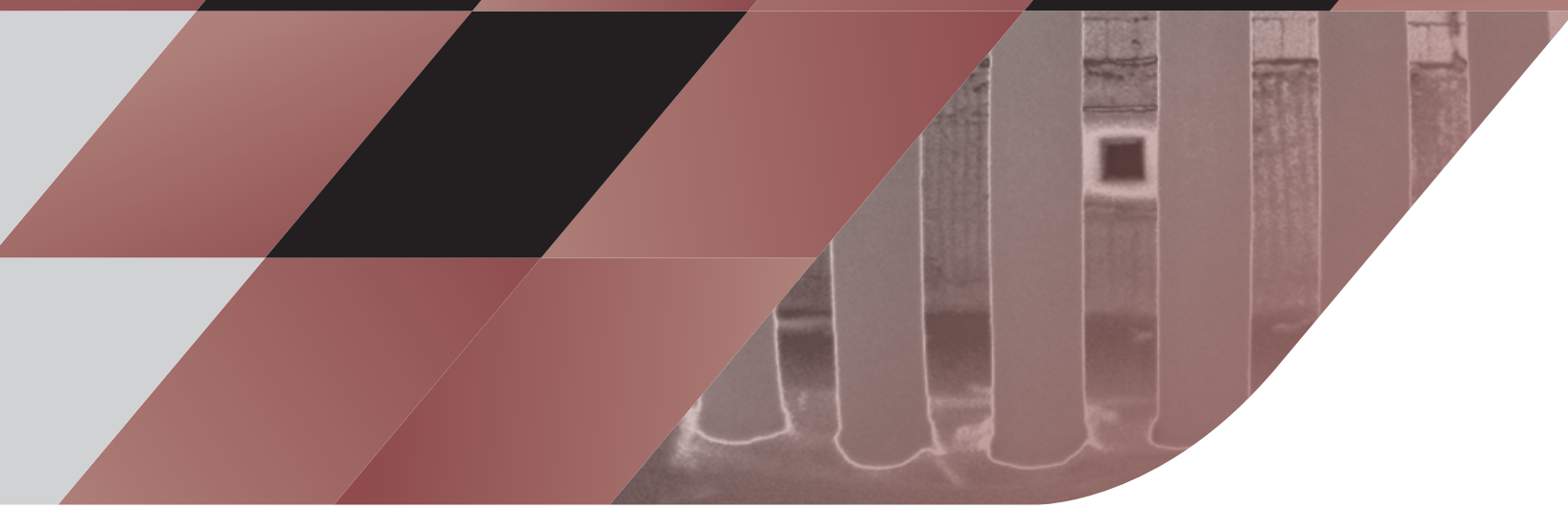
PORTABLE FURNACE THERMAL IMAGING SYSTEM

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 and glass making, 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.

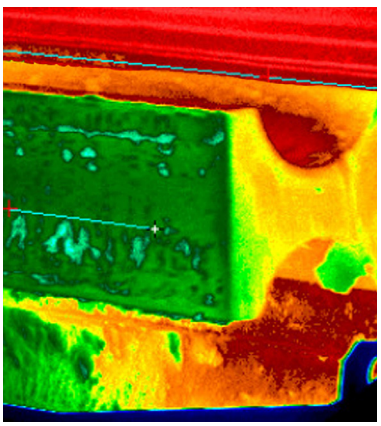
To optimise the operation of furnaces the temperature within the furnace must be measured frequently and the temperature distribution monitored. In addition to using pyrometers to take point measurements, high-resolution thermal imaging systems are also available as fixed installations or as portable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

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

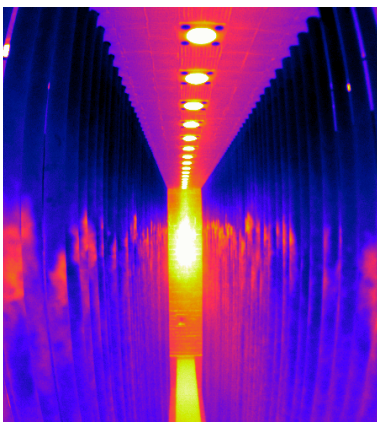
This portable system includes a battery power supply and air connection for purging the imager whilst collecting short clips of the process. Plus, the advanced IMAGEPro thermal imaging software is installed on a Windows® tablet and enables extensive on-site real-time monitoring and analysis of the thermal 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.

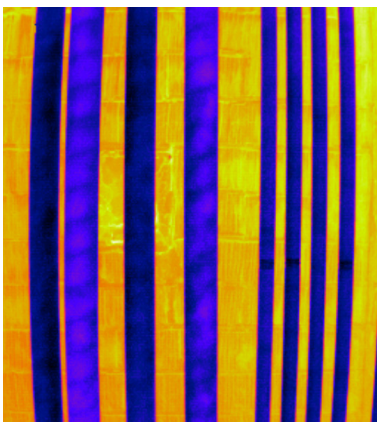
THERMAL FURNACE SURVEYS



Reheat Furnace



Steam Methane Reformer



Ethylene 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: PORTABLE BASE UNIT
Contains one 3700 mAh battery for instrument power. A spare battery is included with the system

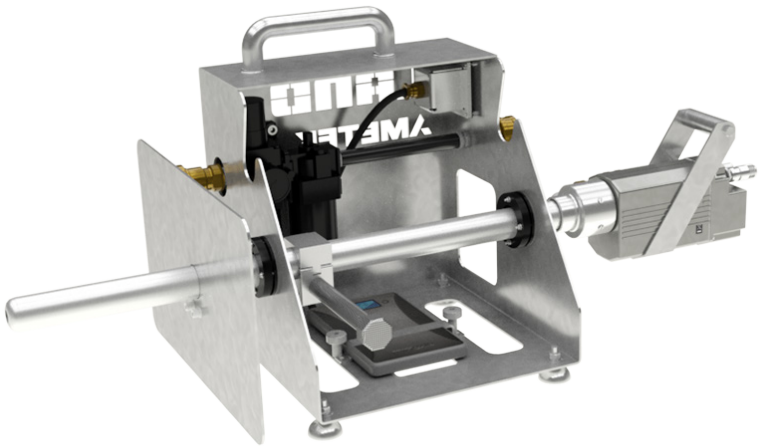
4: HEAT PROTECTION SHIELD
Protects the operator from heat radiation and hot furnace air

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

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 High-Resolution Furnace Thermal Imaging Systems - 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

Key Components:	Portable unit Power-Battery Pack Instrument Air Filter Unit Purging Air Camera Hose (5 m / 197″) Camera Power Connection Cable (5 m / 197″) Ethernet Camera Cable (5 m / 197″) Windows® Tablet - IMAGEPro pre-installed Flight Case
Available Models (Camera Combinations):	NIR-B-640-600/2000C-90/2 NIR-B-640-600/2000C-44/2 MWIR-B-640-300/1200C-90/2
Portable Unit Dimensions (WxDxH):	482 x 374 x 414 mm / 19 x 14.7 x 16.3″ (without camera)
Portable Unit Weight:	15 kg (with imager)
Imager & Shield Dimensions:	954 x 400 x 250 mm / 37.6 x 15.7 x 9.8 ″ (camera and shield assembly)
Imager Probe Length:	2 ft / 640 mm (instrument probe)
Tablet Dimensions:	314 x 207 x 24.5 mm / 12.4 x 8.1 x 1"
Tablet Weight:	1.4 kg
Instrument Air Connection:	1/2" BSP female or 1/2″ NPT female
Instrument Air Specifications:	Max. air temperature at inlet 40 °C / 104 °F 400 l/min at 1200 °C / 2192 °F applic. temperature *This equipment is not designed for permanent installation. Insertion time will depend on site conditions.*
Max. Recommended Process Temperature:	1200 °C / 2372 °F
Max. Camera Probe Tip Temperature:	85 °C / 185 °F - NIR-B 60 °C / 140 °F - MWIR-B (tip temperature shown in software)
Battery Capacity:	2 3700 mAh (24V) batteries (one to power instrument and one as a spare)
Battery Output:	12-24 V DC
Battery Life:	Max. 11 hours continuous usage for each fully charged battery
Operating Temperature (Ambient):	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.

LAND AMETEK®

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We are fully committed to Quality Assurance. See all our accreditations at AMETEK-LAND.COM/QUALITY

MARCOMS_DOC-0030 Portable Furnace Thermal Imaging System Brochure Rev 6