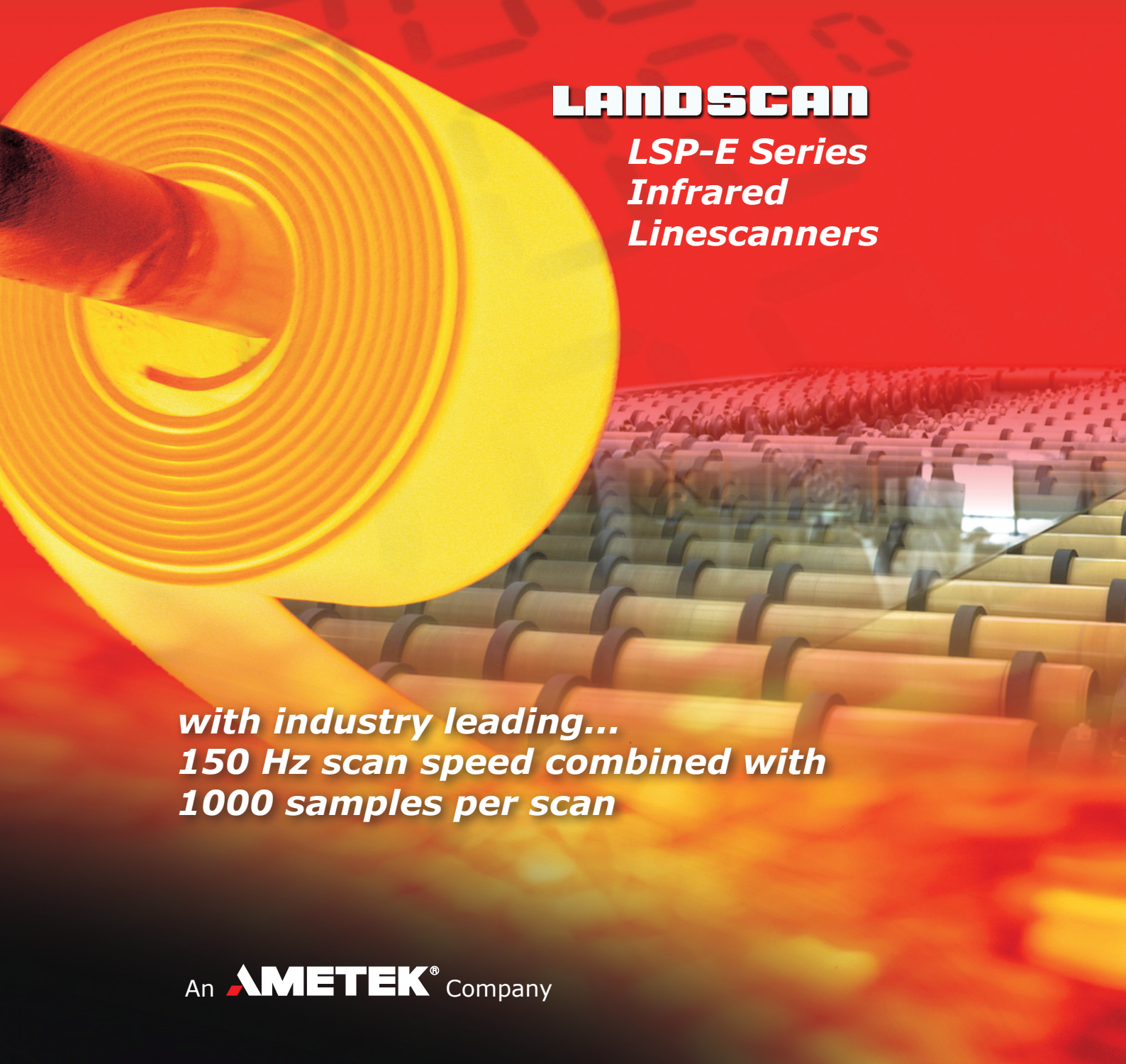
LAND

Thermal Imaging and Temperature Profiles
for Continuous Process Monitoring and Quality Control



LANDSCAN

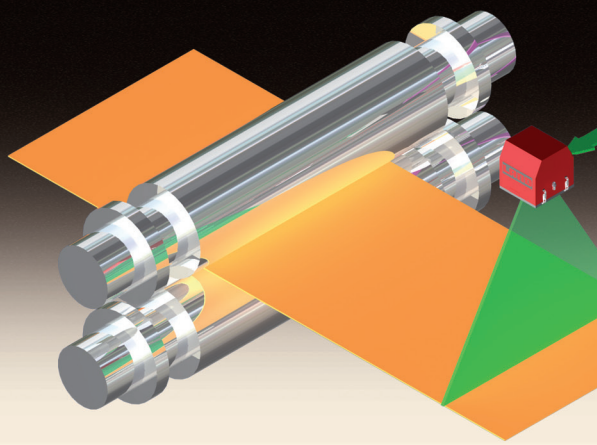
LSP-E Series
Infrared
Linescanners

with industry leading...
150 Hz scan speed combined with
1000 samples per scan

An AMETEK® Company

LANDSCAN

LSP-E Series
Infrared Linescanners



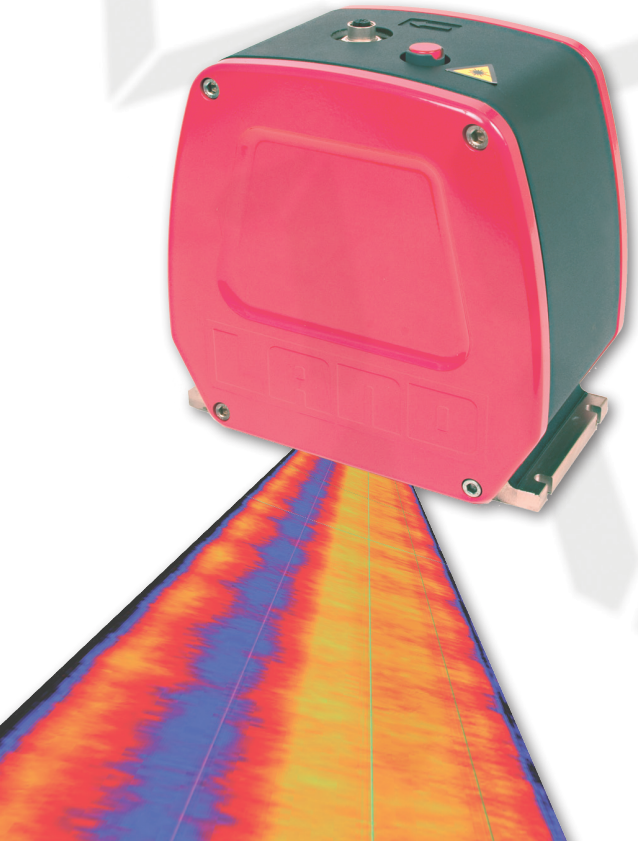
Features & Benefits

+ High resolution, user focusable optical system allowing detection of small temperature differences across the width of the product, providing optimum product quality through improved process control.

+ Designed for operation in harsh industrial environments – sealed to IP65 (NEMA4), where the ambient temperature is up to 200°C (390°F), ensuring maximum measurement availability and longer instrument life.

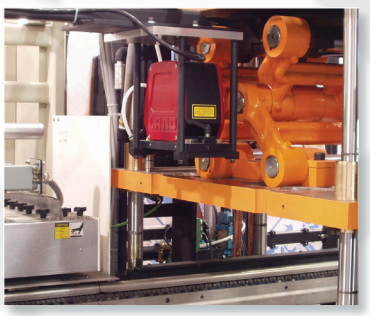
+ Plug and play installation via a single Ethernet cable connection, reducing installation time, costs and complexity.

+ Range of data output formats for easy connection to the process control system.

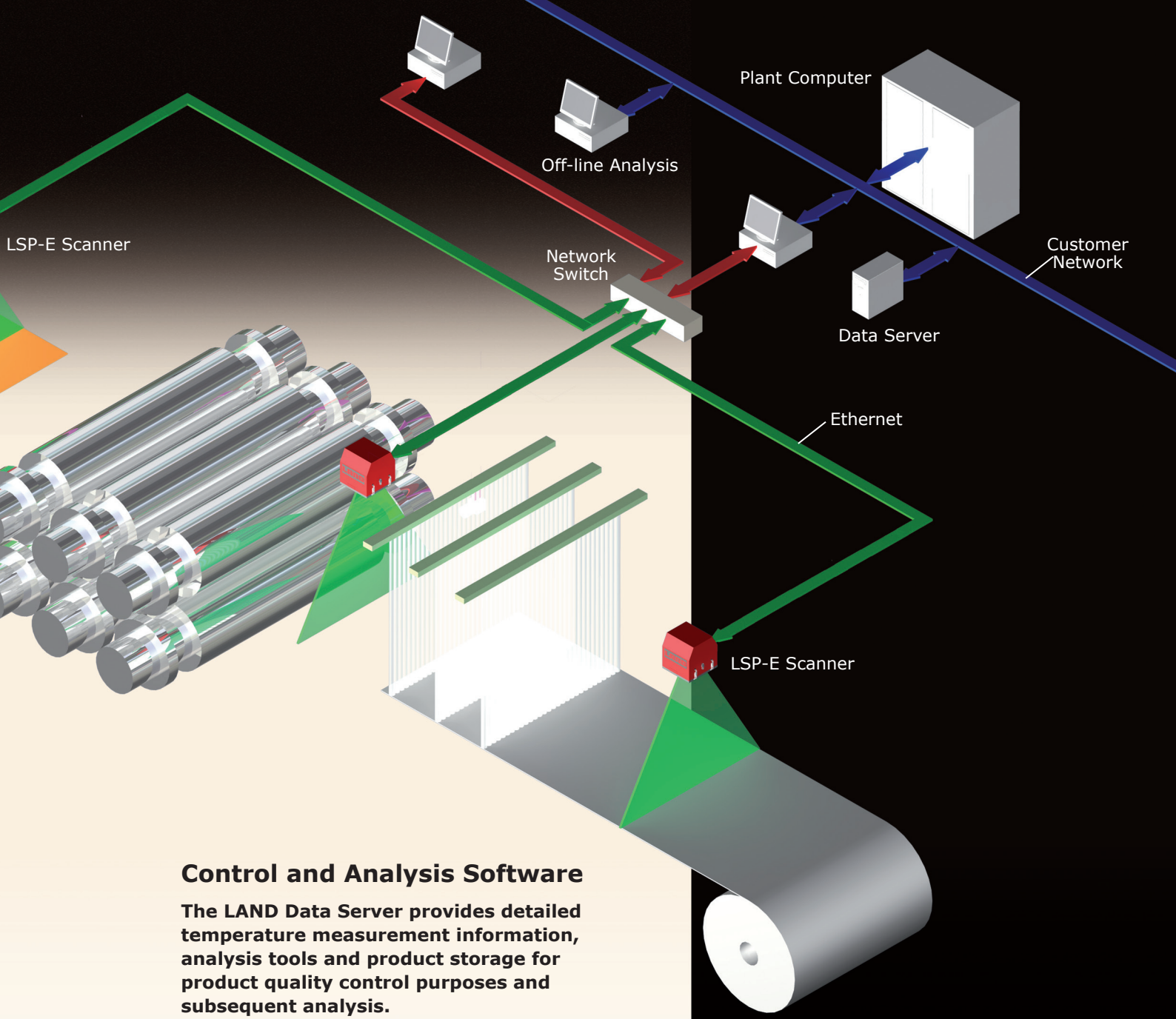


LSP-E Functions

- High definition thermal imaging from a combination of fast scan speeds (up to 150Hz) and high resolution optics (1000 samples per scan line).
- Streamed process data is available directly from the scanner via digital communications for direct integration into plant control systems.
- Analog and digital outputs can be connected via the ethernet link to provide flexible connectivity directly to process control systems.
- Optional analog and digital inputs to interface with external process sensors, e.g. process speed sensors, weld detectors and hot metal detectors



Typical LSP-E installation

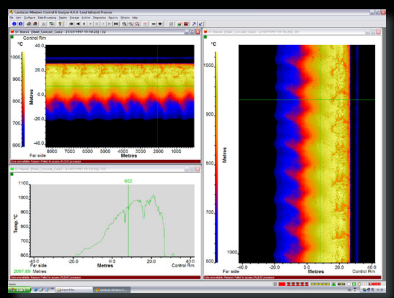


Control and Analysis Software

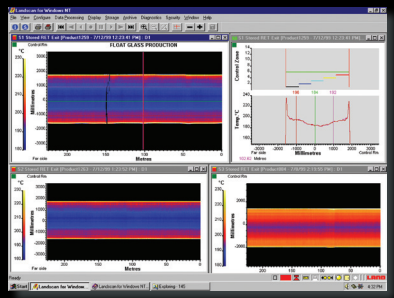
The LAND Data Server provides detailed temperature measurement information, analysis tools and product storage for product quality control purposes and subsequent analysis.

Software Features

- Simultaneous display and processing of multiple live data sources with historical data sources
- Automatic bad product rejection functions
- Flexible interface – provides access to measured temperatures and processed data via a wide range of standard industrial interfaces, e.g. cross-platform TCP/IP protocol, OPC, analog signals or alarm outputs
- Optional support of multiple client workstations – accessing both live and historical data
- Off-line software available to provide access to historical data for quality control purposes



Typical Steel Concast profile



Typical Glass Floatline profile

LSP-E Applications

Industry	Application	Typical Temperature Measurement Range	Recommended Scanner
Cement	Rotary Kilns, Conveyors, Dryers	20 to 250 °C / 70 to 480 °F 50 to 400 °C / 120 to 750 °F 100 to 600 °C / 210 to 1110 °F	LSP-E 60 LSP-E 61 LSP-E 62
Conveyors	Cement, Asphalt, Coke	20 to 250 °C / 68 to 482 °F 50 to 400 °C / 122 to 752 °F 100 to 600 °C / 212 to 1112 °F	LSP-E 60 LSP-E 61 LSP-E 62
Glass	Floatline, Automotive, Holloware, Bending, Toughening/Tempering, Annealing, Solar Panels	150 to 750 °C / 302 to 1382 °F 500 to 1100 °C / 932 to 2012 °F	LSP-E 5FL & LSP-E 50 LSP 52
Iron & Steel	***Hot Strip Mill*** - Roughing Mill Entry/Exit, Coil Box, Edge Heaters, Continuous / Multi-strand caster ***Hot Plate Mill*** - Roughing Mill Entry/Exit, Hot Leveller ***Hot Beam Mill*** - Beam, Beam caster, Jumping beam detection Reheat Furnace Exit, Rod and Wire	600 to 1400 °C / 1112 to 2552 °F 700 to 1500 °C / 1292 to 2732 °F	LSP-E 10 LSP-E 11
	Hot Strip Mill - Cooling Section Hot Plate Mill - Run-out table Continuous Annealing line (top pf snout before zinc pot) Annealing Furnaces Galvanising and Galvanneal lines	200 to 850 °C / 390 to 1560 °F 300 to 1000 °C / 570 to 1830 °F 400 to 1200 °C / 750 to 2190 °F	LSP-E 20 LSP-E 21 LSP-E 22
	Torpedo cars, Ladle safety, Coated steel Galvanising lines *(top roll position)*	20 to 250 °C / 70 to 480 °F 50 to 400 °C / 120 to 750 °F 100 to 600 °C / 210 to 1110 °F	LSP-E 60 LSP-E 61 LSP-E 62
	Paint Coating Lines	50 to 350 °C / 122 to 662 °F	LSP-E 71
Non-wovens	Non-wovens (Paper rolls, webs)	20 to 600 °C / 68 to 1112 °F	LSP-E 60, 61 & 62
	Polymer-based	50 to 350 °C / 122 to 662 °F	LSP-E 71
Plastics	PVC, Polycarbonates, Polypropylene, Polyethylene, PET, Cellulose acetate and Polystyrene, Thin Plastics, Thermoforming	50 to 350 °C / 122 to 662 °F	LSP-E 71
	Plastic Extruders, Thermoforming	20 to 250 °C / 70 to 480 °F 50 to 400 °C / 120 to 750 °F 100 to 600 °C / 210 to 1110 °F	LSP-E 60 LSP-E 61 LSP-E 62
Other Industries	Cold Rolling, Coating Processes, Building Products	20 to 600 °C / 70 to 1110 °F	LSP-E 60, 61 & 62

Intelligent Scanning

Intelligent scanning solutions aim to solve problems by providing more than just a measurement. LAND is able to provide a custom solution according to your requirements – this includes custom temperature ranges, application specific mountings and bespoke communications protocols.

LAND

Non-Contact Temperature Measurement Solutions

An AMETEK® Company

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For full details of all international offices and distributors please visit our websites

0034
Applies in the UK

REGISTERED ISO 9001 MANAGEMENT SYSTEM

LABORATORY ACCREDITATION BUREAU ACCREDITED ISO/IEC 17025:2005
Applies in the USA

Continuous product development may make it necessary to change these details without notice.