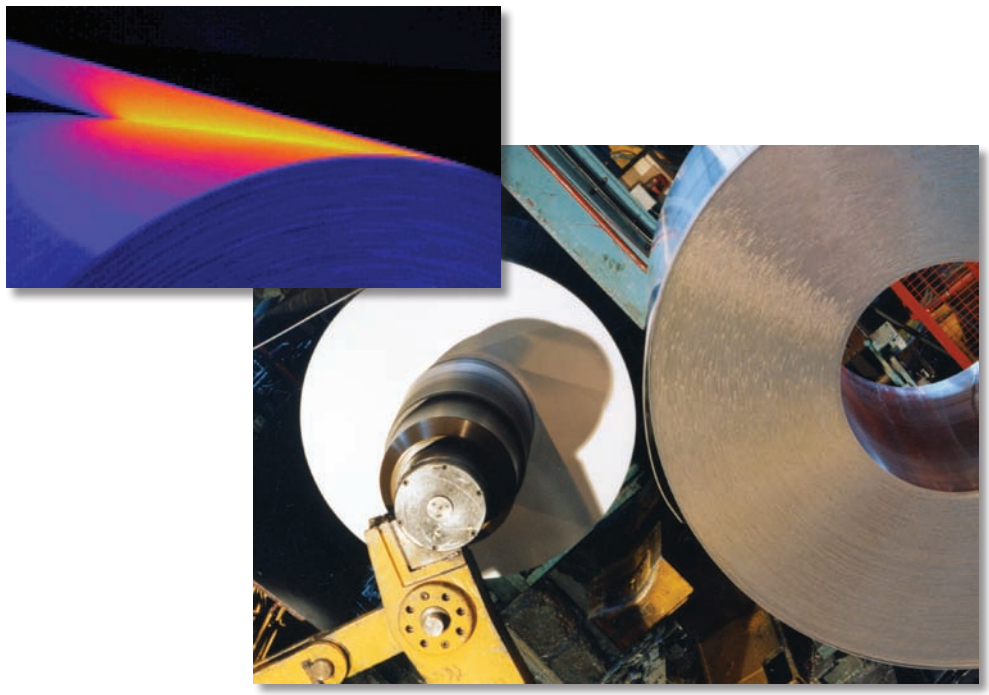
LAND

An AMETEK® Company



Aluminum Strip Processing System

Process Imaging

Intelligent Design

The information you want... the way you want it

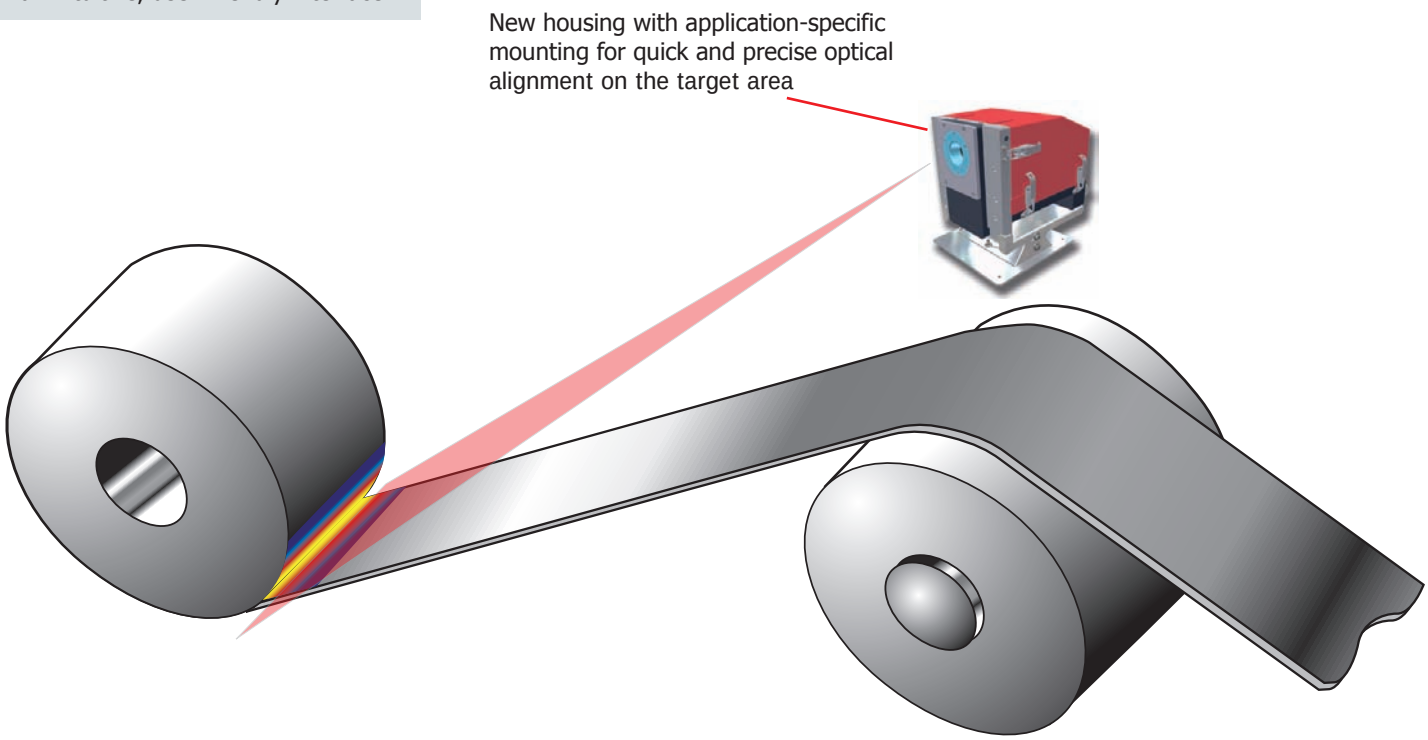
Following extensive consultation with some of the world's leading Aluminum producers, the Land Aluminum Strip Processing System has been designed to give the maximum amount of information in an intuitive, user-friendly interface.

Plug & Play Setup

Automatic detection and tracking of the optimum measurement position.

Product Traceability

Automatic storage of temperature data from each coil for subsequent analysis.



Process Control Variables

Improved product quality via multiple configurable control parameters.

Data Exchange

Processed data can be transferred via a simple cross-platform TCP/IP protocol or an optional OPC server.

Fully Configurable Alarms

Can be triggered if any part of the strip exceeds the safe rolling temperature. This minimises the risk of lubricant ignition. Individual zone alarms, or centre versus edge temperature alarms can be configured to alert operators instantly to product quality issues.

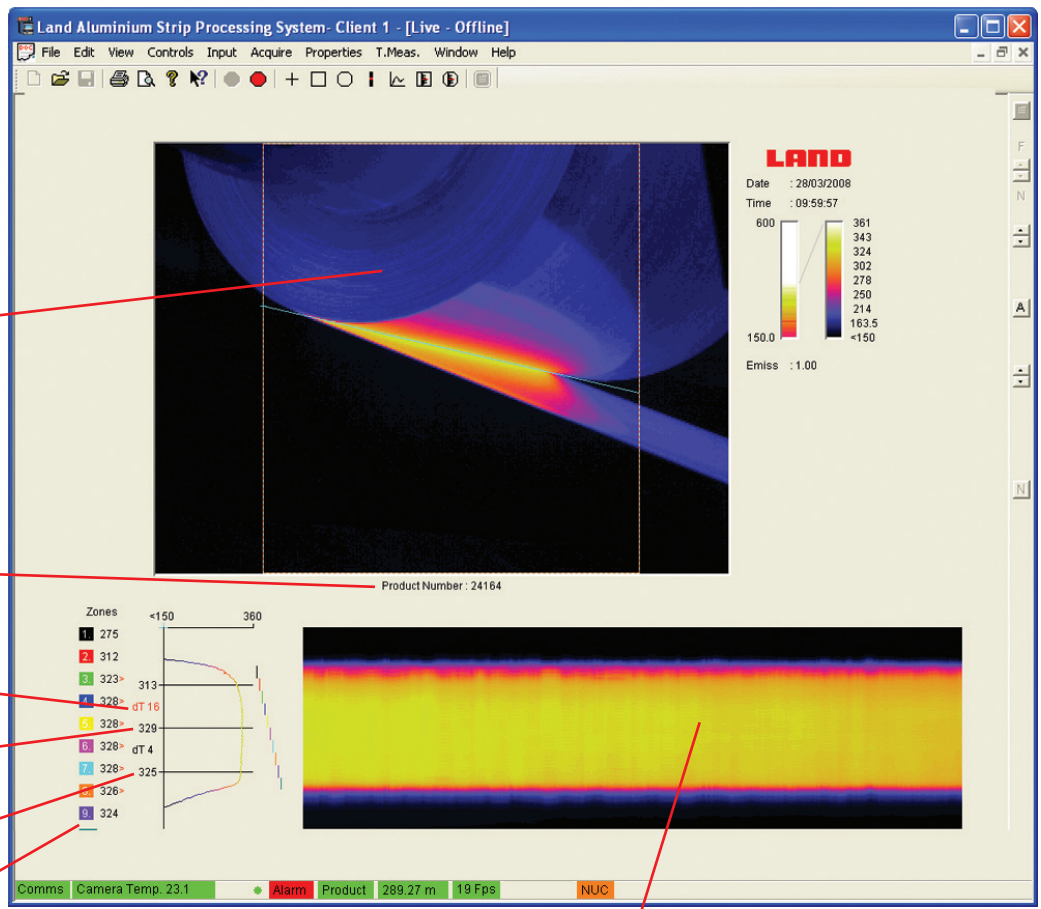
System Overview

The LAND Aluminum Strip Processing System with its unique Coil Tracking software is set to revolutionise product quality and process control in the aluminum coiling industry, with the introduction of 2-dimensional temperature profiling independent of alloy type.

The LAND Coil Tracking software* eliminates the complex setup and configuration requirements of using a thermal imager in the aluminum coiling industry. With the configuration of as little as two key parameters, the software is able to detect the coil as it is formed and track its position throughout the coiling process. Coils can then be analysed to generate temperature data for product quality tracking and process control.

System Benefits

- **Quality Control** - detection of product quality issues prior to despatch: increased product traceability
- **Process Control** - accurate temperature compensation of critical thickness gauges
  - speed control based upon coiling temperature
- **Plant Safety** - accurate monitoring of temperatures can prevent ignition of lubricant



Real time live thermal image

Product stored using Coil ID number or Date/Time

Strip edge to Centre Alarms

Automatic calculation of strip centre temperature

Automatic calculation of edge temperature

Up to 10 user-defined control zones (with alarms)

2D thermal map for intuitive post-production analysis

** Patent pending*

Thermal Imager Specifications

Application	Hot Mill Coiler	Cold Mill Coiler
Temperature Range:	150 to 600 °C 300 to 1110 °F	50 to 350 °C 120 to 660 °F
System temperature measurement accuracy:	±1 % C / ±1 % F above 200 °C / 390 °F	±1.5 °C (50 to 150 °C) ±1% C (150 to 350 °C) ±3 °F (120 to 300 °F) ±1 % F (210 to 660 °F)
System temperature measurement drift with ambient temperature: (Imager & Control Processor, ° indicated / ° ambient)	0.2 ° indicated / 1 ° ambient (°C or °F)	
System thermal resolution (rms value):	less than 0.2 °C less than 0.36 °F	less than 0.15 °C 0.27 °F at 122 °F
Field of view (H° x V°) (Factory option):	32 x 24	
Single Pixel FOV: (single pixel, distance: target ratio)	570 : 1	
Focusing range:	0.5 m / 19 in to infinity	
Ambient temperature range (Imager, operating):	5 to 50 °C / 40 to 120 °F	
Ambient temperature range (With cooling system):	5 to 85 °C / 40 to 185 °F	
Dimensions (w x h x d):	258 x 305 x 330 mm / 10 x 12 x 13 in (fitted inside protective enclosure)	
Weight	4.5 Kg / 10 lb (20 kg / 44 lb including protective enclosure)	
Sealing:	IP65 / NEMA 4	
Vibration:	0.5 mm, 10 to 60 Hz; 3g, 60 to 300 Hz	
CE Certification:	EN 61326: 1999 B	

Optional Local Interface Unit	
FTI CP:	Real-time local processor and power supply/signal connection to imager
Power Supply	85 to 264 Vac; < 200W
Ambient Operating Temperature:	5 to 45 °C / 40 to 110 °F
Dimensions (W x H X D):	600 x 380 x 210 mm / 23 x 15 x 8 in
Weight:	29 kg / 64 lb
Sealing:	IP65 / NEMA4
Options	
Touchscreen:	For local process visualisation and control
Inputs/Outputs	Up to 3 modules from a choice of 5
Digital Inputs:	Up to 8 channels through a single module
Digital Outputs:	Up to 16 channels of relay outputs through two modules
Analogue Inputs:	Up to 8 channels through a single module
Analogue Outputs:	1 channel of current output per module; 4 channels of voltage output per module; up to 2 analogue output modules may be fitted (both modules must be of the same type - either current or voltage)

All accuracy specifications:
a) are stated for 30 °C / 86 °F indicated ambient temperature
b) % specifications are "% of reading" and apply to measurements in both °C and °F

LAND

Non-Contact Temperature Measurement Solutions

An AMETEK Company

Applies to the UK

Land Instruments International Ltd • Dronfield S18 1DJ • England • Tel: +44 (0) 1246 417691 • Fax: +44 (0) 1246 410585
Email: infrared.sales@landinst.com • **www.landinst.com**

AMETEK Land, Inc. • 150 Freeport Rd. • Pittsburgh, PA 15238 • U.S.A. • Tel: +1 (412) 826 4444
Email: irsales@ametek.com • **www.landinstruments.net**

France
Ametek SAS - Land
Tel: (1) 30 68 89 80 • Fax: (1) 30 68 89 99
Email: land.france@ametek.com

Germany
Ametek GmbH - Land Instruments
Tel: 02171/7673-0 • Fax: 02171/7673-9
Email: info.land-de@ametek.de

Italy
Ametek Srl - Land Division
Tel: 02/946931 • Fax: 02/94693850
Email: info.land@ametek.it

Japan
Land Instruments Ltd
Tel: 06 6330 5153 • Fax: 06 6330 5338
Email: info@landinst.jp

Spain
Land Instruments International
Tel: 91 630 0791 • Fax: 91 630 2918
Email: land-infrared@landinst.es

Mexico
Ametek Land Inc
Tel: 52 55 52811165, 52807933 • Fax: 52 55 52815364
Email: ventas@ametek.com

China - Beijing
Land Infrared Temperature Measurement
Tel: +86-10-85262111 Ext 39
Fax: +86-10-85262141
Email: infrared.sales@landinst.com

REGISTERED ISO 9001 MANAGEMENT SYSTEM

LABORATORY ACCREDITATION BUREAU ACCREDITED ISO/IEC 17025:2005

Applies to the USA

Copyright © 2008 Land Instruments International

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