

# LAND



## Landscan LSPHD

A series of linescanning systems designed specifically for use in the glass industry. High definition thermal imaging from a combination of fast scan speeds (up to 150Hz) and high resolution optics (1000 samples per scan line).



## Cyclops Portable Thermometers

Land Cyclops 100B & 390B are dedicated high precision, portable infrared thermometers, designed for accurate measurement in the temperature range 450 to 3000 °C / 842 to 5432 °F.



## Model FG

The Fiberoptic Model FG has been designed specifically for use within the glass industry - particularly on the forehearth and working end. Its output can be linked directly to readout or control equipment.

Infrared Temperature Measurement Solutions for the Flat Glass Industry

# Flat Glass Temperature Measurement

## Intelligent Imaging

Intelligent imaging 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

Land Instruments International Ltd • Dronfield S18 1DJ • England  
Email: [land.infrared@ametek.co.uk](mailto:land.infrared@ametek.co.uk) • [www.landinst.com](http://www.landinst.com) • Tel: +44 (0) 1246 417691 • Fax: +44 (0) 1246 410585

AMETEK Land, Inc. • 150 Freeport Rd • Pittsburgh, PA 15238 • U.S.A.  
Email: [irsales@ametek.com](mailto:irsales@ametek.com) • [www.ametek-land.com](http://www.ametek-land.com) • Tel: +1 (412) 826 4444 • Fax: +1 (412) 826 4460

For a full list of international offices, please visit [www.landinst.com](http://www.landinst.com)

Non-Contact Temperature Measurement Solutions



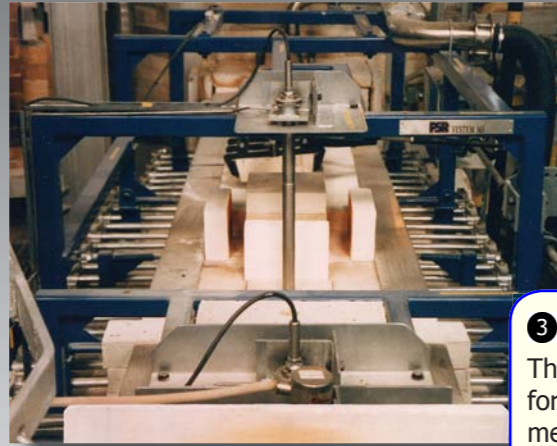
An AMETEK Company

Applies in the UK

Applies in the USA

An AMETEK Company

# Measurement Locations



## 1 Regenerator

Temperature measurement is essential for this area of the tank. Infrared thermometers provide a long-term, cost effective and more reliable measurement than thermocouples.  
Solution: **Model FG**



## 2 Port Arch

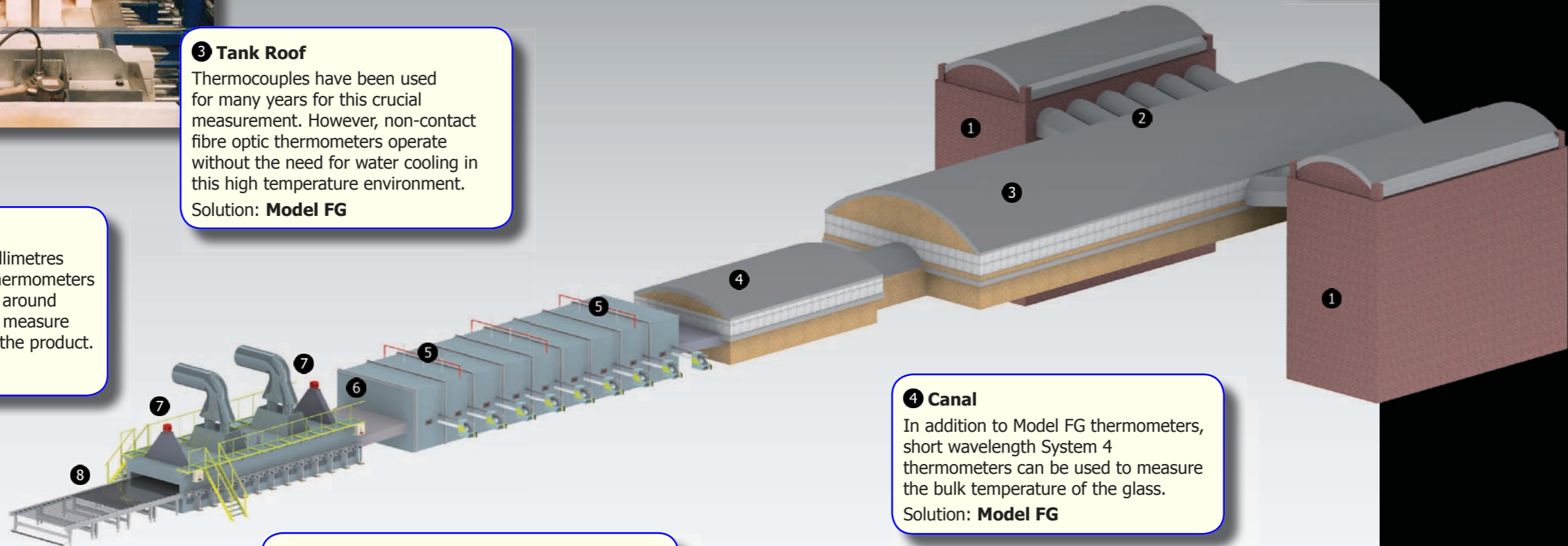
Measurement of the port arches, especially in cross-fired furnaces, can provide important information on basic firing conditions.  
Solution: **C100B / C390B**

## 3 Tank Roof

Thermocouples have been used for many years for this crucial measurement. However, non-contact fibre optic thermometers operate without the need for water cooling in this high temperature environment.  
Solution: **Model FG**

## 5 Tin Bath

When glass is just a few millimetres thick, selected waveband thermometers operating in a narrow band around 5µm are used to accurately measure the surface temperature of the product.  
Solution: **FLT5A**



## 4 Canal

In addition to Model FG thermometers, short wavelength System 4 thermometers can be used to measure the bulk temperature of the glass.  
Solution: **Model FG**

## 6 Break Detector

Measurement here is used to highlight any breakages of the glass. Acting as a simple 'presence detector', a thermometer or linescanner placed at this point aids the complete automation of the process.  
Solution: **RT80A**

## 7 Lehr 8 Lehr Exit

As the rate of cooling in the lehr is so important, frequent accurate measurement of the temperature profile is critical. The most detailed lehr temperature profiles are generated with a Landscan system utilising the application dedicated LSP5 FL. This high speed 5µm linescanner, when integrated as part of a multihead linescanning system provides unprecedented levels of information and control of glass temperatures in the lehr.  
Solution: **LSPHD 5FL**



Measurement Location	Solution		
	Portable	Fixed	Process Imager
1 Regenerator	C100B / C390B	Model FG	
2 Port Arch	C100B / C390B	Model FG	
3 Tank Roof	C100B	Model FG	
4 Canal		Model FG	
5 Tin Bath		FLT5A	LSPHD 5FL
6 Break Detector		RT80A	
7 Lehr		FLT5	LSPHD 5FL
8 Lehr Exit			LSPHD 5FL

Individual thermometer datasheets are available on request

## Features and Benefits

- Simple Installation
- Fully Configurable Alarms
- Very Low Maintenance
- Data Exchange
- Suitable for All Coatings
- Designed for Harsh Industrial Environments

# LAND