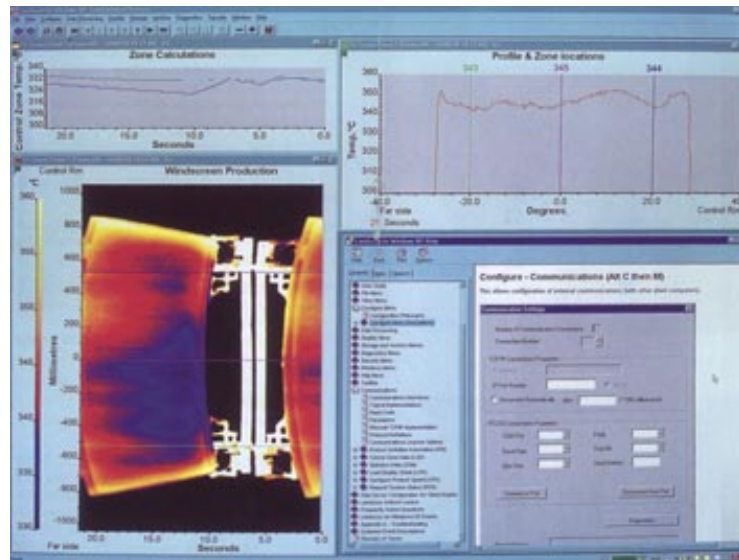


Typical Landscan NT screens - showing a combination of profile, 3-D and thermal maps, data table and on-line help.



PRODUCT ASSURANCE

When you specify **LAND** products you are assured of receiving a completely pretested, calibrated working product. Each instrument is carefully checked to ensure complete compliance with specification and is fully guaranteed. **LAND** was the first manufacturer of infrared instruments to successfully obtain ISO 9001 Quality Management System Approval for both design and manufacture of non contact infrared temperature measuring equipment.

The Quality Management System of Land Instruments International Ltd. Is approved to BS EN ISO9001:2000 for the design and manufacture, stockholding, in-house repair and site servicing of non contact temperature measuring instrumentation. Associated software designed and developed in accordance with TickIT. Calibration certificates are available from our UKAS accredited Calibration Laboratory No. 0034. The Land calibration laboratory complies with the requirements of the international standard BS EN/IEC 17025.

CE LANDSCAN complies with current European directives relating to electromagnetic compatibility and safety (EMC directive 89/336/EEC; Low voltage directive 73/23/EEC).



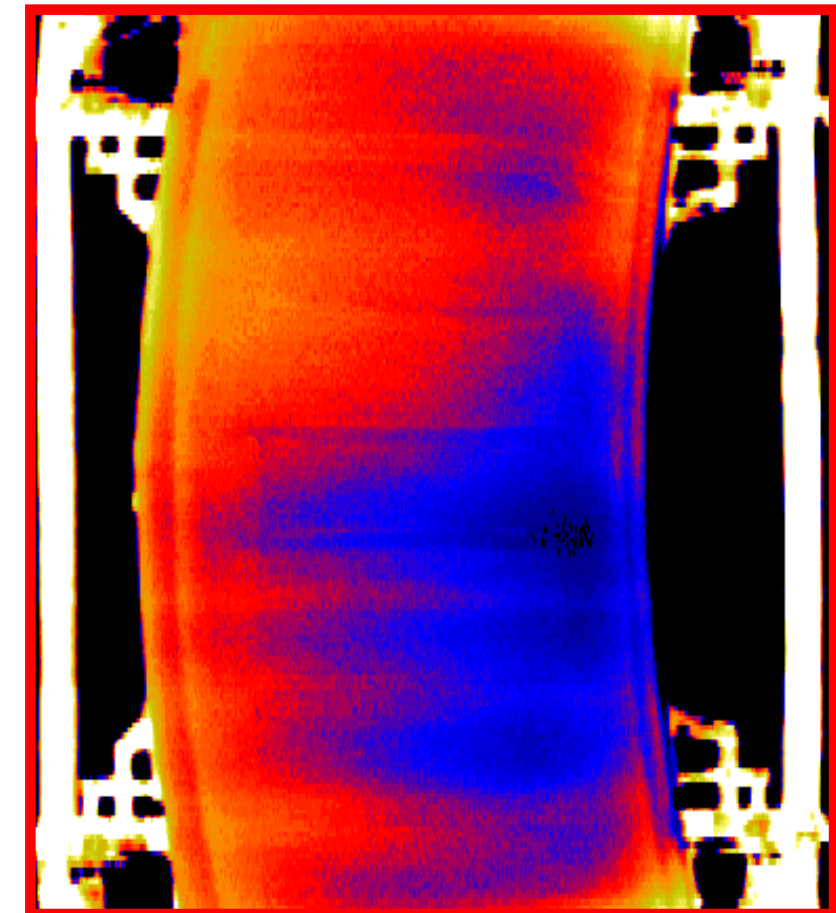
APPLICATIONS

LANDSCAN is increasingly being used to solve temperature measurement problems in a wide variety of industries and applications, some of which are listed below:

- **Hot strip and hot plate mill**
Rougher, edge heaters, coil box, finishing stands, gauging cold correction, coiler
- **Beam, billet and sections mill**
Rail head, beam roughing and finishing, gauging cold correction
- **Rod/wire mill**
Pre-coiler, cooling conveyor
- **Continuous, thin strip and aluminium casting**
Spray chamber, rougher and induction heater exit, crop shear
- **Reheat furnace**
Furnace exit
- **Welding**
Turbine shaft and induction pipe welding
- **Galvanizing**
Snout, furnace, top roll
- **Galvanneal**
Entry dip, top roll
- **Continuous annealing lines**
Cooling and heating
- **Glass**
Float, forming and toughening
- **Paper**
Web and roll
- **Research and development**

For further information or free advice on your specific temperature measurement problems, contact your nearest **LAND** office.

LAND



LANDSCAN

INFRARED LINESCANNING ON AUTOMOTIVE GLASS



LAND

instruments international

Infrared Temperature Measurement

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Automotive glass production plants around the world are already realising the benefits of installing a Landscan for Windows NT® system.

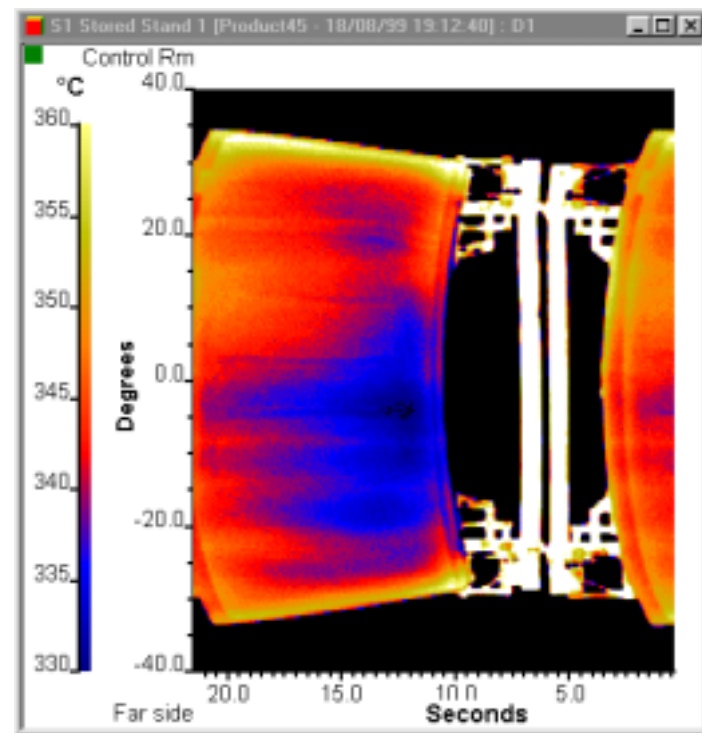
BENEFITS AND FEATURES

- Yield enhancements attributable to more consistent product temperature distributions prior to forming to final shape.
- Subtracted map displays give immediate post-processed images of the difference between the latest batch and the reference batch.
- Database - trending for Quality Assurance, statistical summaries, downstream customers' Certificates of Conformity, etc.

WINDSCREENS/WINDSHIELDS

The Landscan sensor head is normally mounted in a rugged housing on the process centre-line, above the exit of the heating section.

Product speed is medium to fast; necessitating the use of scan rates in the range 25 to 50Hz.



LOW-EMISSIVITY COATED COMPONENTS FOR REFLECTION OF SOLAR ENERGY

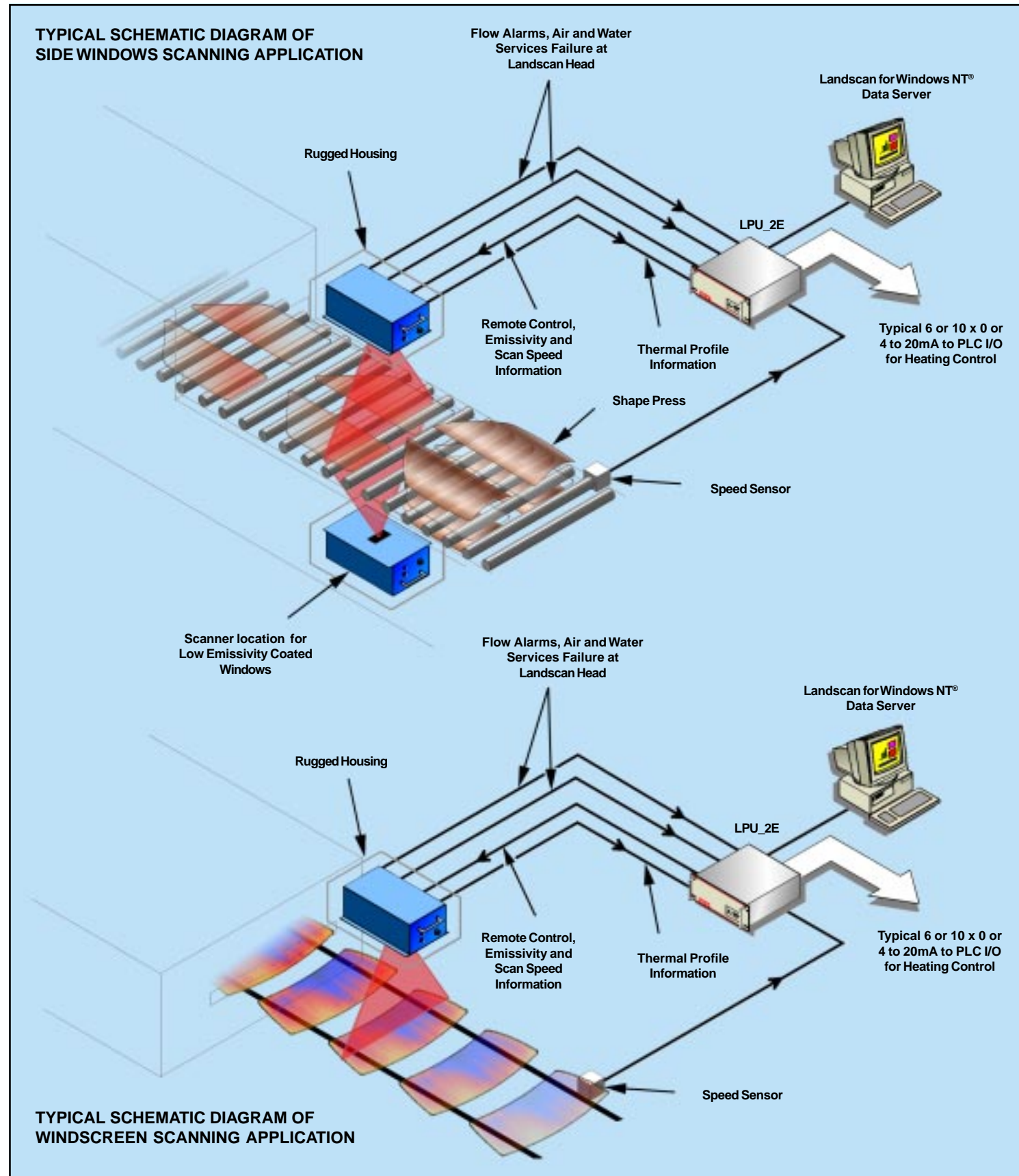
A Landscan sensor head is normally mounted on a Mounting Plate on the process centre-line, below the exit of the heating section immediately prior to the shaping dies.

Product speed through the scan plan is medium to fast; necessitating the use of scan rates in the range 25 to 50Hz.

LANDSCAN

INFRARED LINESCANNING SYSTEMS

AUTOMOTIVE GLASS - FORMING AND TOUGHENING



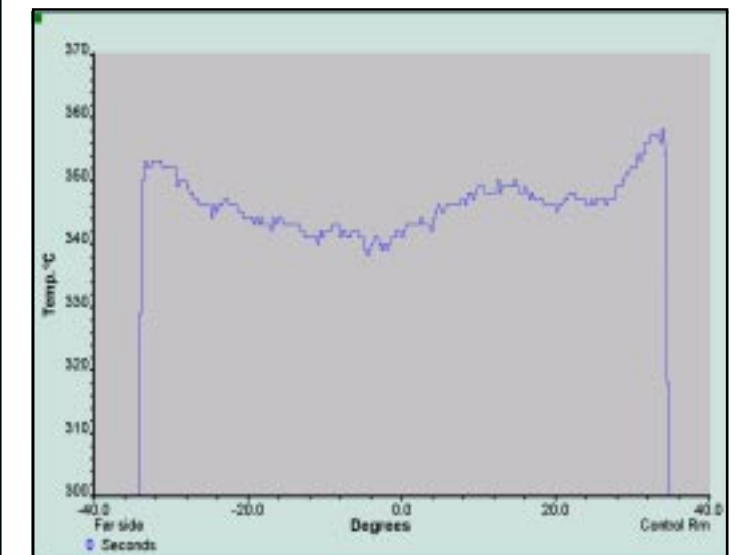
SIDE WINDOWS

The Landscan sensor head, sealed in a rugged housing, this is mounted on the process centre-line and above the exit of the heating section, prior to the shaping dies.

Product speed is fast to very fast, requiring the use of scan rates in the range 50 to 100Hz.

Mounting the scanner underneath the process allows the sensor head to scan the uncoated underside of the glass components.

These sensor head installations demand excellent scan alignment and the best quality optics available (small target spot diameters with very low levels of optical aberration) as sighting is normally between a pair of closely-spaced support rollers immediately prior to the shaping dies.



A typical temperature profile across a side window.

DATA PROCESSING

The LPU_2E processor can also be supplied with analog output cards to facilitate integration of the Landscan derived thermal information with the control system.

Retrofitting 2, 6, 10, or 14 channels of analog outputs can be easily achieved locally, as and when required with no requirement to return the unit for a factory upgrade.

A TCP/IP Ethernet link is established between the LPU_2E and the Data Server PC, allowing the configuration of operator displays, automatically managed product database (storage by exception if required), subtractive displays, reduced statistical data sets per batch, and simultaneous live and historical displays.

If other, remote user groups also require access to the data this can be achieved via Client Displays (live and historical data) or auto-archiving to a networked fileserver (historical displays only).