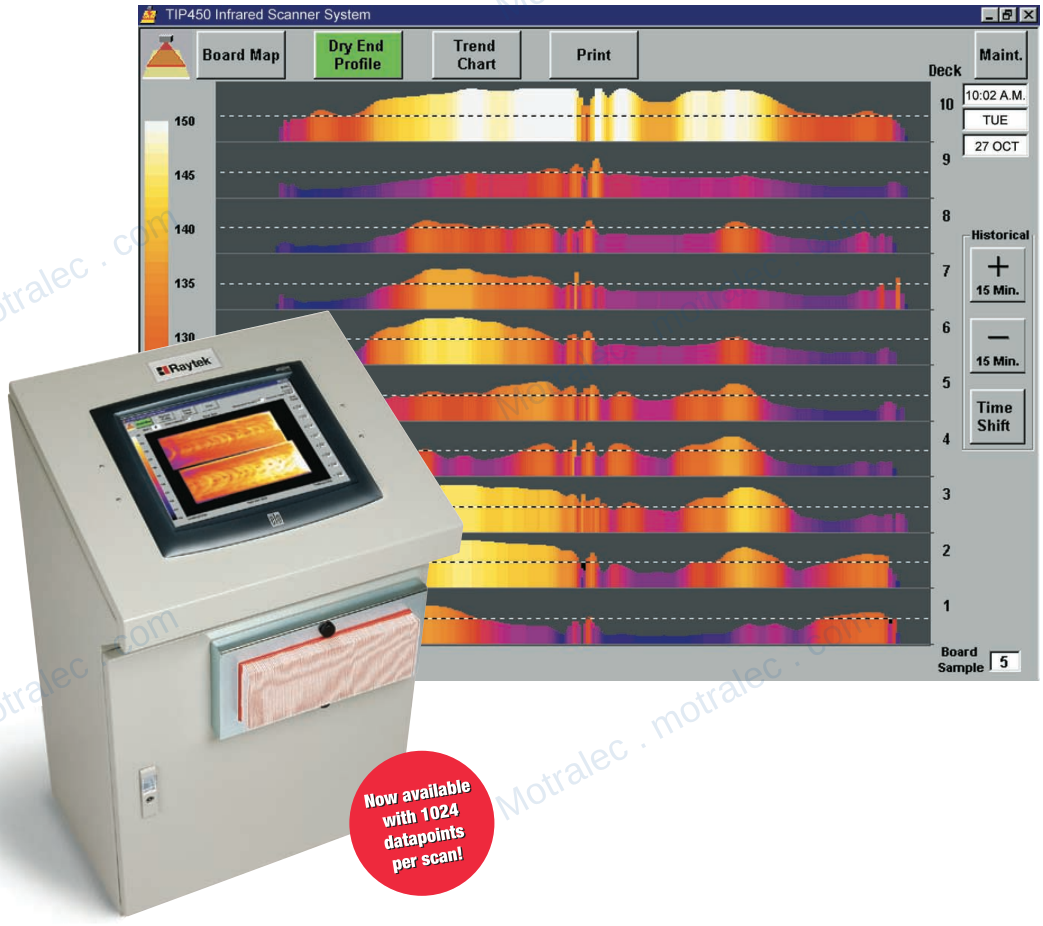
motralec Raytek TIP 450E
DEMANDE DE PRIX >
★★★★★ 4,8/5 sur +600 avis . Depuis 1976 . 3 agences : Herblay-sur-Seine (95), Sèvres (92), Étréchy (91) . www.motralec.com

RAYTEK PROCESS IMAGING SERIES



TIP450E

Thermal Imaging and Profiling System for Wallboard Applications



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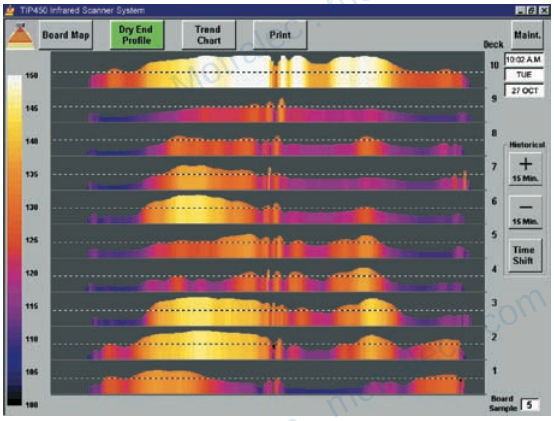
Accurate, Reliable Kiln Balance Surveys

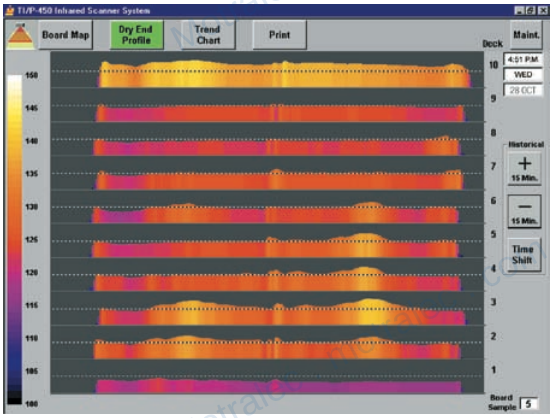
- Fuel Savings
- Quality Improvements
- Increased Production
- Fast Dryer Setup
- Labor Reduction

Detailed, Continuous Board Quality Monitoring

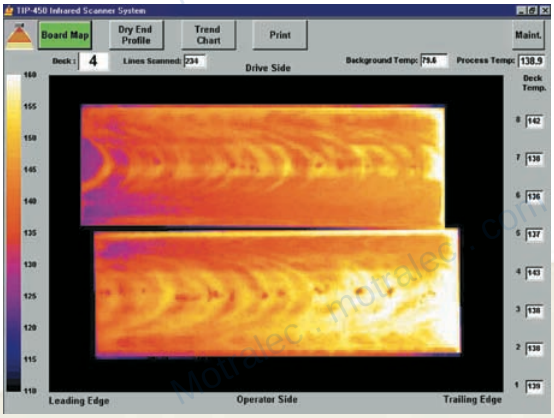
- Real-time Board Quality Monitoring
- Defect Detection
- Reject Board Detection
- Simplified Dryer Process Monitoring and Control
- Quick Dryer Operator Training
- On board Ethernet TCP/IP Communication
- Bulit-in line laser sighting



BEFORE: An actual *dryer profile image* running 1/2" (12mm) board before the dryer was balanced with the TIP450E. This screen clearly shows the top deck is burned (lighter), while wet streaks (darker) occur on other decks.



AFTER: The same dryer running the same product after adjustments to the decks using TIP450E data. This optimization saved 5% on fuel usage and gained 6% on line speed.



Real-time board map displays a thermal image of each board as it leaves the dryer, providing comprehensive board quality information.



Real-time and historical trend charts offer a precise view of the board dryness over time.

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The TIP450E System



The TIP450E system is comprised of 4 main components:

- **A Main console cabinet**
- **B MP150 infrared process imager**
- **C Remote I/O assembly**
- **D Fixed infrared sensor assembly**

The main console cabinet houses the software, PC, touch-screen monitor, power supply, data acquisition electronics, and field wiring terminals. This console should be located where the dryer operator can easily view it and make dryer process changes.

The infrared process imager is mounted into a small enclosure with a scan port in the bottom. The enclosure is located over the conveyor section just past the outfeed cascade rolls.

The remote I/O assembly is used to monitor the drop gate signals at the dryer outfeed section. This small DIN rail mounted assembly is designed to be located inside the existing drop gate I/O cabinet.

The fixed infrared sensor assembly is used to monitor the board temperatures right at the dryer exit. This information is used in the software to compensate for ambient air temperature variations. The infrared sensor is mounted inside a heavy duty telescoping mechanical arm.

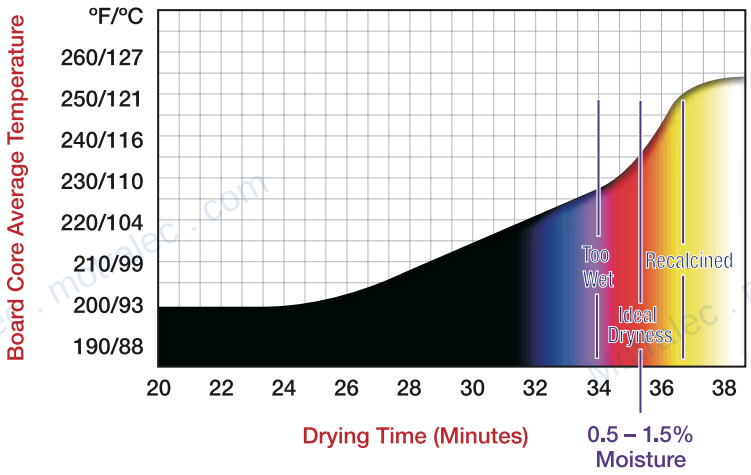


Infrared Linescanner

The highly accurate MP150 Linescanner monitors the smallest changes to the board making and drying processes.

The imager scans the boards up to 150 times a second with up to 1024 individual temperatures taken on each scan. This results in 40,000 temperature points measured every second.

This data is used to create board thermal maps, dryer profile images, and historical trend charts.



The temperature of the board changes as the drying progresses. Scanning the board temperature with the TIP450E has proven to be the most accurate means of indicating the dryness of the board.

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System Electrical Specifications

Power Input	120VAC/60Hz or 240VAC/50Hz
Power Consumption	5A @ 120VAC or 2.5A @ 240VAC
Signal Inputs at RIO from Drop Gates	120VAC, 240VAC, or 24VDC (sourced)
Signal Input from Outfeed Conveyor	120VAC, 240VAC, or 24VDC (sourced)
Signal Outputs for Alarms	120VAC, 240VAC, or 24VDC

MP150 Linescanner Specifications

Scan Speed	up to 150Hz
Scanning Resolution	256 points @ 150Hz 512 points @ 80Hz 1024 points @ 40Hz
Temperature Range	20 to 350ºC (68 to 662ºF)
IR Spectral Response	3 to 5 microns
Scan Angle/Field of View	90 degrees
Accuracy	+/- 2% of measured value or +/- 2º C (4ºF) whichever is greater
Repeatability	+/- 1% of measured value or +/- 1º C (2ºF)
Focus	1.52m (60in)
Emissivity	0.1 to 1.0 digitally adjusted
Optical Resolution	150:1 @ 90% energy or 450:1 @ 50% energy
Input Voltage	24VDC (provided from power supply in main console)
Environmental Housing	Installed in ported Rittal® enclosure with fan and filter
Scan Motor MTBF	40,000 hours

Main Console Specifications

Enclosure	Rittal® operator console with 30 degree slanted top 72 cm x 91.2 cm x 57.6 cm (30 in x 38 in x 24 in)
Environmental Rating	NEMA-12 (IP55) 512
PC	Dell® mini tower, 128MB RAM, 4GB HDD, CD ROM
Operating System	Windows XP®
Monitor	Industrial 15 in monitor LCD with acoustic wave touchscreen and 1/4 in (0.64 cm) plate glass. Flush mounted in lid of console.
Cooling/Ventilation	Fan and filter



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- Plus de 200 000 références et 30 marques distribuées
- Vente, réparation, bobinage et SAV en atelier
- Livraison partout en France, accompagnement avant et après-vente

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