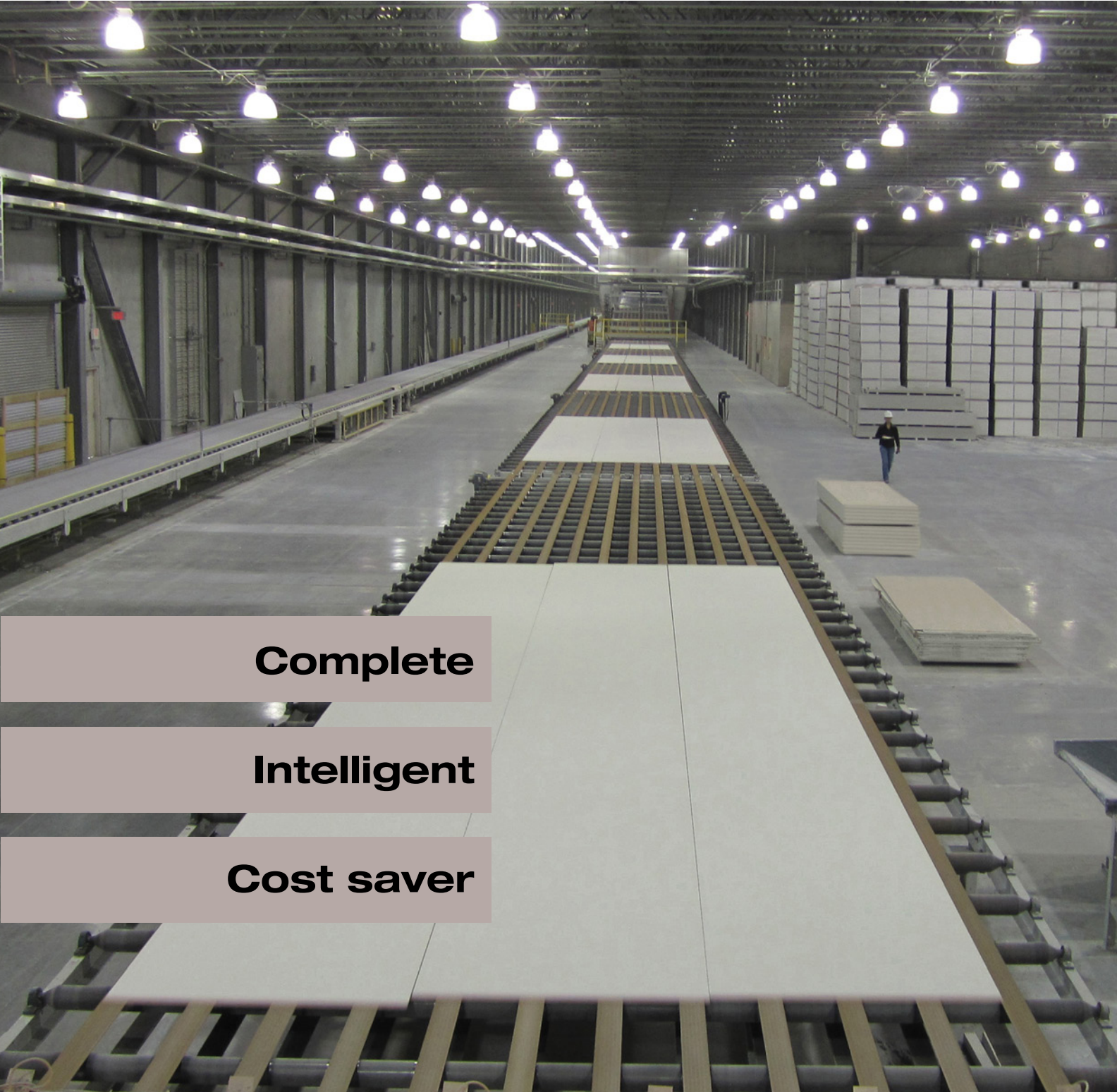# TIP900 Thermal Imaging System

IR temperature monitoring solution for wallboard production

Complete

Intelligent

Cost saver

In the heat of the moment, what is the temperature? Not knowing can mean the investment and labor of everyone and every material involved in the manufacturing process, from the raw to the finished product, is at risk. We take the heat and tell you its temperature. Precisely, accurately, and with the greatest of detail, all to ensure our customers' promise of quality is delivered.

We are Raytek, Ircon, and Datapaq. Combined, we have over 125 years of experience in temperature measurement. Individually, we have earned the respect of manufacturing's most valued names.

Together, we are Fluke® Process Instruments – a triad of the top performing, innovative, most rugged and dependable noncontact temperature measurement and profiling equipment made – a complete line of infrared sensors, line scanners, thermal imagers and profiling systems for use in today's most demanding environments.

Raytek, Ircon, and Datapaq. The first names in temperature control have become the last word in manufacturing with confidence:

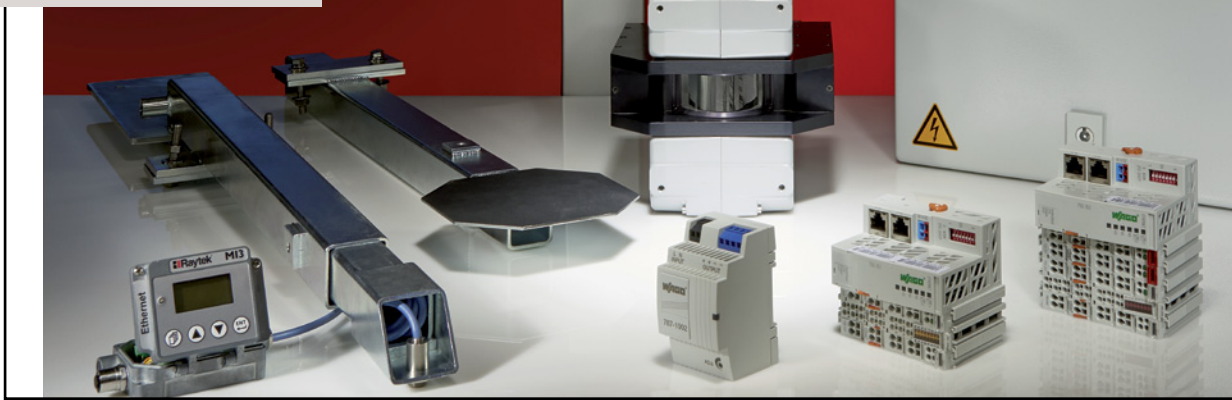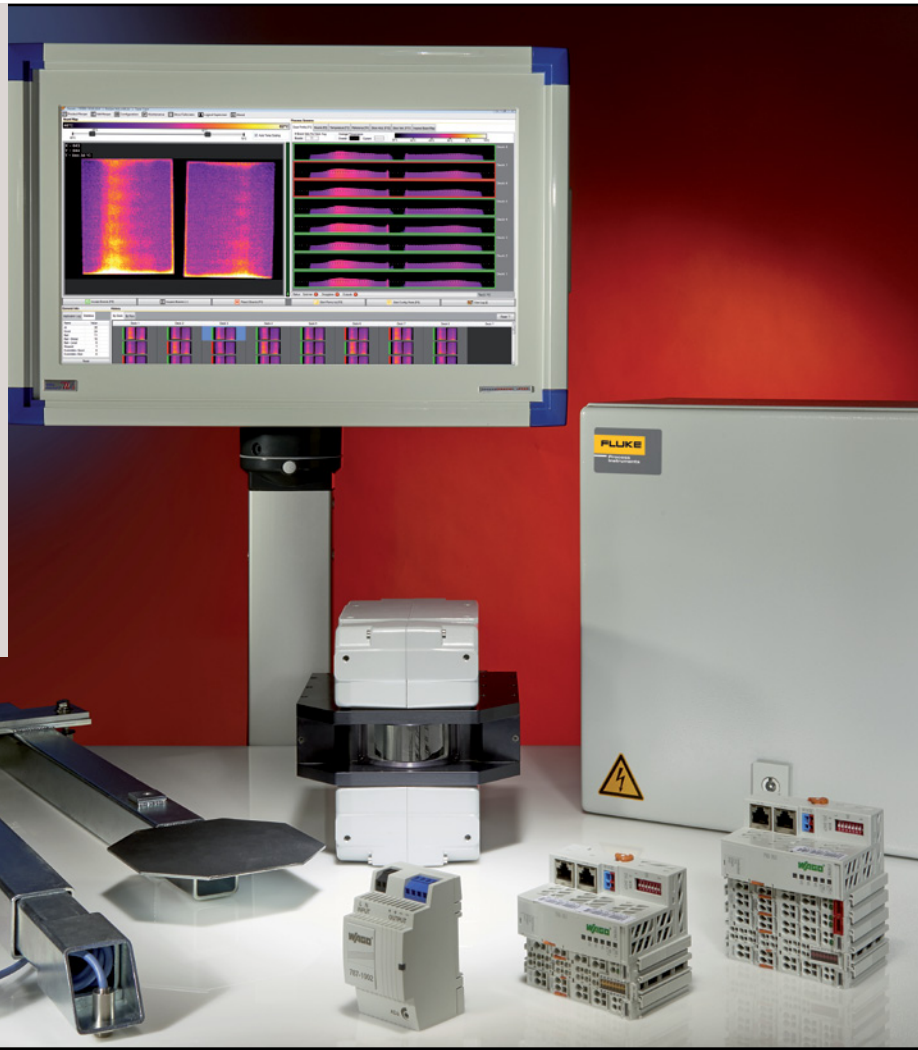**Fluke Process Instruments**

The complete, intelligent and easy-to-use solution
... saving you time and money

The TIP900 system is a comprehensive thermal imaging and noncontact profiling solution designed to supervise the temperature of wallboards coming out of the oven. It uses an infrared thermal imager to continuously scan the entire board surface temperatures and allows the detection in real time of moisture and density variations inside each board. The software is designed to monitor and adjust for maximum board quality and detect defects or process changes. It also analyzes and provides optimal oven dryer profile balance. The detailed board quality maps, the historical board temperature trend charts and the images can be seen locally at the operator workstation or remotely. All data is stored in the LogViewer database for complete process visibility and long term traceability.
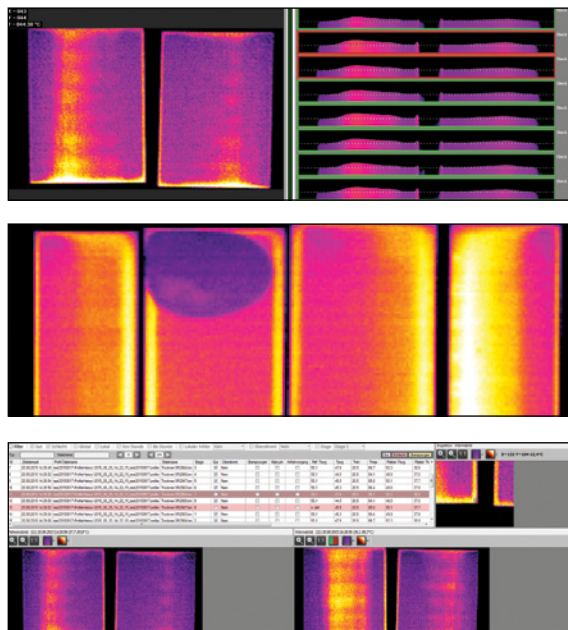
Complete solution

- **Complete turn-key industrially designed hardware & software system**
- **High resolution thermal imager for accurate infrared images**
- **PC mounting with touch monitor for easy check onsite**
- **Complete hardware system configured for harsh environments**
- **Network connectivity for remote communication**
- **Remote viewing software with clear graphical overview on a single screen**
- **Onsite TIP900 system configuration and training of your operators**

Intelligent Software Package

The powerful TIP900 software provides sophisticated data integration, visualization and event analysis, and offers users a complete solution of real-time monitoring, detection and traceability.

- Detailed continuous board quality monitoring (100% of all board images are archived)
- Easy recipe setup – automated scaling
- Automated board defect detection and rejection
- Ethernet connectivity: process data, defect reports, dryer balance profile, etc., can be shared with HMI
- Dynamic deck-to-deck dryer profile balance monitoring
- Failure identification function tracked in database
- Database LogViewer for historical analysis (for remote access viewing of any TIP900 on a company network)
- Configurable reject/alarm parameters

System Specifications

Thermal Imager

Temperature Range	350 ºC max. (662 ºF max)
Ambient Temperature	0 to 50 ºC (32 to 122 ºF)
Scanning Resolution	up to 1024 points @ 40 Hz
Accuracy	± 2% of measured value or ± 2 ºC (4 ºF), whichever is greater
Repeatability	± 1% of measured value or ± 1 ºC (2 ºF), whichever is greater
Shock	IEC 60068-2-27, 3 axes, operating: 5 g at 11 ms, 15 g at 6 ms
Vibration	IEC 60068-2-6, 3 axes, 10 to 150 Hz, operating 2 g above 20 Hz

Industrial Touch PC Panel (Windows 7)

Screen Attributes	1920 x 1080 pixels
Screensize	21.5"
Processor	Intel i7
Hard Drive	500 GB

Cost Saver Solution

Quick return on investment

- Improves product quality and wallboard uniformity
- Increases productivity and throughput
- Reduces scrap and production downtime
- Saves operator time and labor costs
- Increases operator efficiency
- Simplifies dryer setup and control
- Dynamic deck-to-deck dryer profile balance monitoring
- Optimizes oven temperature to save energy & fuel costs
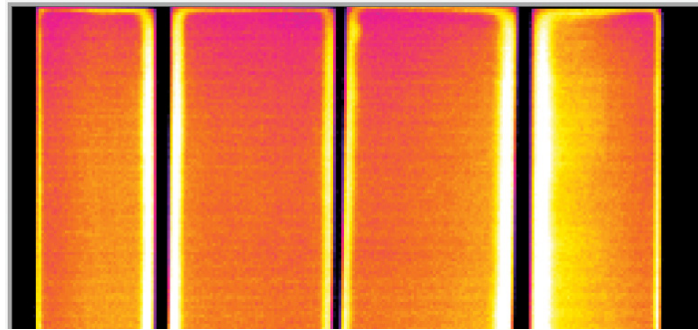
Applications

The TIP900 system performs real–time board temperature monitoring, defect detection & rejection, and dryer balance imaging. The thermal imager scans the entire board surface temperatures with more than 40,000 data points each second. This high level of resolution allows the system to automatically detect the most minor board quality issues.
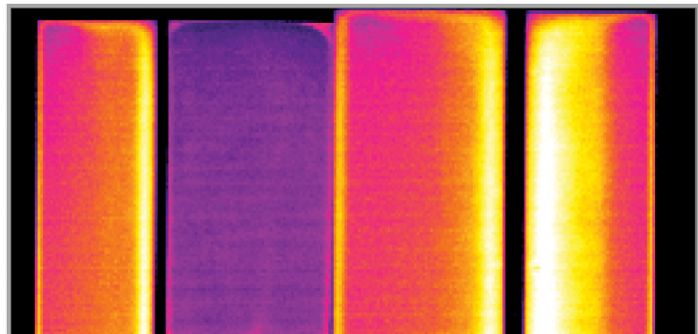
Failure Detection

Over/under–dried boards

Paper blisters

Edge peel/end burns

Paper blows

Mixer voids & clumps

Belt splices

Overlapped boards

Cracks and bubbles

Benefits

Complete – system includes hardware, software and industrial housings for operator–friendly use in industrial environments

Intelligent - provides detailed continuous board quality monitoring and automatic defect detection

Cost saver – quick return on investment and higher worker efficiency

Board with no defect

Automatic defect detection with TIP900 software

The Fluke Process Instruments Guarantee

The TIP900 system is supported by a 2 year warranty. With a network of trained representatives and agents in over one hundred (100) countries and offices located in the U.S., Germany and China, we provide local service and support you can rely on time after time.

Fluke Process Instruments

Worldwide Service

Fluke Process Instruments offers services, including repair and calibration. For more information, contact your local office.

www.flukeprocessinstruments.com