



ABSR ENGINEERS & SERVICES PVT. LTD.

**Your PARTNERS for
INNOVATIVE
ENGINEERING
SOLUTIONS**



EMPOWERING PEOPLE

TESI SPA Italy - High Energy Ignition System



Relying on over 30 years of expertise, Tesi designs and manufactures best in class ignition systems for gas, oil, coal and multi-fuel burners, supplying major petrochemical, chemical and energy players at a worldwide level with state of the art devices.

- HIGH ENERGY IGNITION SYSTEMS
- SOLID STATE IGNITERS FOR HEAVY DUTY TILTING BURNERS
- HIGH VOLTAGE IGNITION DEVICES
- PILOT BURNERS
- PORTABLE IGNITERS
- ACCESSORIES AND CONNECTION CABLES



TESI SPA Italy - High Energy Portable Igniters



High Energy **RETRACTABLE IGNITION SYSTEMS** for tilting burners are designed to ignite diesel and heavy fuel oil directly. They are provided with a retraction system protecting tips from dirt and flames once sparking is finished and a flexible rod to follow the main burners' angle. They present electrical requirements so to deliver energy up to 24 Joules, needed to light the HFO directly. HE Ignition systems can replace traditional air/gas pilot torches, providing the most reliable and cost-effective fuel ignition whether gas, light oil, diesel or heavy oil is used.

Tesi **PORTABLE IGNITION DEVICES** are designed to ignite burners without an individual pilot torch or electrode assembly. They are the best back up solution to solve existing igniters failures or in case of emergency. Thanks to a solid design and low voltage input, the operator can handle the rod easily during maintenance, without any risk of breaking the insulators and avoiding dangerous electric shocks.



Tesi®
S.P.A.

www.tesigroup.com

BFI AUTOMATION Germany - Flame Monitoring & Evaluation System

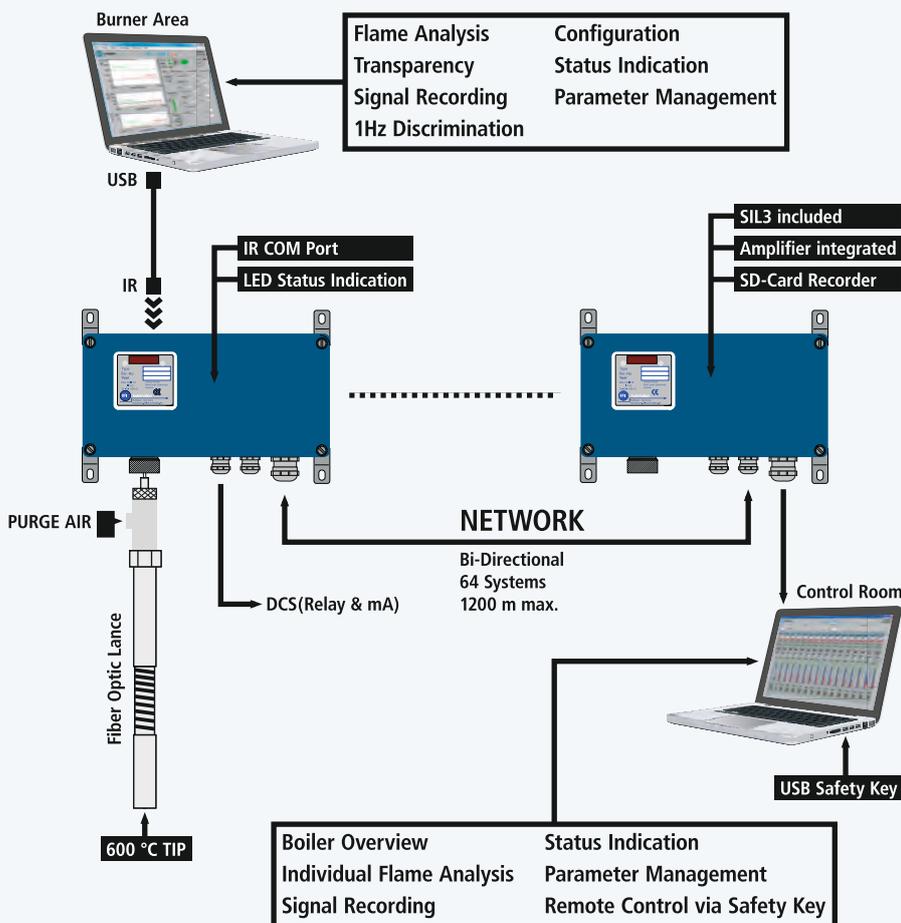


TUV-approved flame monitoring and evaluation systems lead our wide range of outstanding products. Applications include :

- Oil Fired burners
- Coal fired burners
- Gas fired burners
- H2S & BFG burners
- Any combination of above fuel application



THE NEW GENERATION OF FLAME MONITORING



- High Temperature application
- Fiber optic technology
- Hazardous area application
- SIL3 requirements



Flamonitec
BFI AUTOMATION

www.flamonitec-bfi.com

VISION TIR Spain - Multispectral Thermography System

ProTIR

Infrared Thermal Imaging System for Continuous Temperature Monitoring

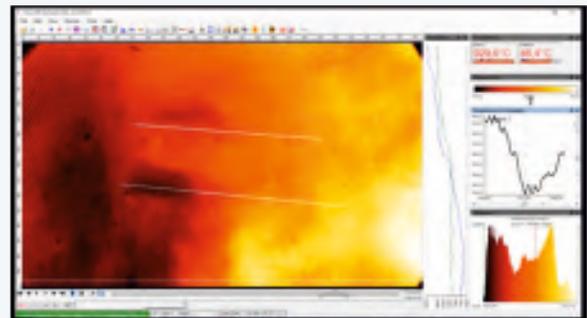
Based on high resolution thermal cameras and a specific software, **ProTIR** provides real radiometric images that accurately measure temperature inside of furnaces, rotary kilns, coolers, incinerators and boilers in the steel, minerals, power generation and process industries.

In addition, **ProTIR** is also ideal for glass melt furnaces, steam reformer and cracker tube furnaces, enabling process control optimization, energy efficiency savings and prolonging the lifetime of the furnaces and reformer tubes.



Benefits

- High-definition thermal images
- Radiometric images with accurate temperature information
- Flame shape optimization
- Process control optimization
- Energy efficiency savings
- Long term reliability
- Minimal maintenance
- 2 years warranty
- Automated alarm outputs
- OPC connection



ProTIR temperature monitoring in Power Plant

Fire TIR

Thermography System for Early Fire Detection

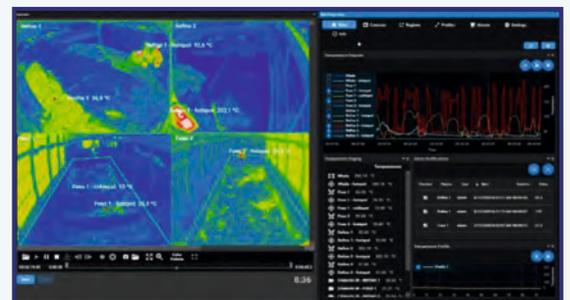
FireTIR System is a modular and flexible solution based in radiometric infrared cameras for early fire detection and temperature monitoring of industrial plants (indoor and on open-air grounds).

FireTIR is able to capture the temperature distribution of a surface in milliseconds, with automatic detection of hot spots.

FireTIR Software offers full remote control of all infrared cameras, different inspection zones configuration, recording functions and analysis of measured data.



FireTIR infrared camera



FireTIR software

Benefits

- 24/7 monitoring of areas with a high risk of fire and explosions
- Real time detection of fire hazards before a fire breaks out.
- Customized installation for temperature monitoring of large areas.
- Maintenance-free operation
- Recommended by leading insurers.
- Modular expansion. The system can be expanded at any time with further cameras and workstations.



GREEN BANK U.K- On-Line Carbon in Ash Analyzer

GCAM®

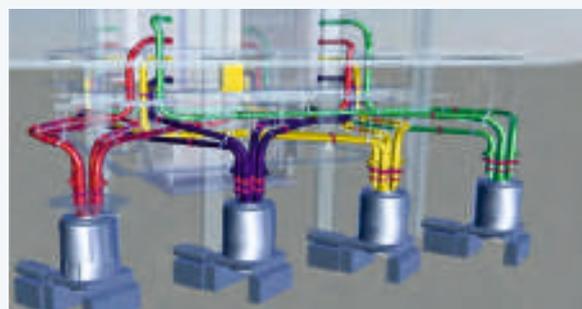


- Accurate and repeatable carbon in ash measurement
- Latest microwave absorption and phase shift measurement techniques
- Suitable for all coal types
- No load cells or density measurement
- Low maintenance
- Rapid iso-kinetic sampling
- Up to 6 multi-point sampling capabilities
- Increased handling rate up to and over 2Kg per hour
- Touch screen control
- Self protecting against boiler oil burning shut down and start up
- Automated, sample segregation for lab analysis

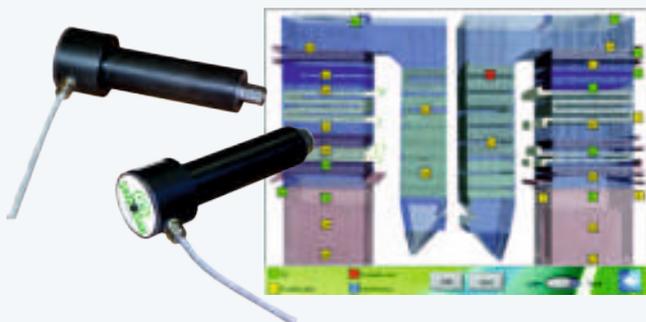
GREEN BANK U.K - On-Line PF Coal Flow Measurement

- The PFMS is designed for use on pulverised-coal flow balancing and measurement monitoring system.
- A single cabinet can connect up to 32 sensors to measure coal distribution and velocity in pulverised-fuel (PF) burner feeds.
Poor fuel distribution causes combustion inefficiency.
- A breakthrough in analysis of Coal-flow transport behaviour and distribution to boiler burners has opened up the possibility of improving combustion efficiency significantly.

PFMS®



GREEN BANK U.K - Boiler Tube Leak Detection System



The Greenbank GA200® series advanced acoustic steam leak detection system is for use on large electric utility boilers which operate using gas, oil, biomass, black or brown coal. The system accurately identifies and locates a boiler tube leak in its early stages against the noise of an operational boiler.



Enhancing Performance

www.greenbankgroup.com

AIRFLOW SCIENCES EQUIPMENT, LLC - Coal Flow Measurement Test Equipment

- Measure primary air flow rates (clean or dirty)
- Perform coal flow sampling (according to ISO or ASME)

Standard Equipment



ISO 9931 Measurement System



Dirty Air Probe (DAP) Test System



ASME PTC 4.2 Coal Sampling System



Automated Test Systems

- accurate
- repeatable
- efficient



The Advanced Coal Flow Measurement (ACFM™) System

The ISO 9931 Measurement System with Automated Probe Actuation™ (ISO-APA)



AIRFLOW SCIENCES EQUIPMENT, LLC - Duct Flow Measurement Test Equipment

- Measure stack gas velocity and volumetric flow rate
- Includes instrumentation and data acquisition software



3D Probe Data Acquisition System (3DDAS™)

 Airflow Sciences Equipment, LLC

www.airflowsciencesequipment.com

OMNIGUARD BY FIREFLY - Flame and Gas Detectors

OMNIGUARD FLAME DETECTORS



Omniguard flame detectors are known throughout the world for their outstanding quality and reliability. Since more than 50 years Omniguard detectors are being used in a wide variety of high-risk fire protection applications.

Omniguard flame detectors offer

- UV, UV/IR and Multi-Spectrum 5IR
- Operating temperature -40° to $+85^{\circ}\text{C}$ (-40° to $+185^{\circ}\text{F}$)
- UV detector also in High-temp version -40° to $+125^{\circ}\text{C}$ (-40° to $+257^{\circ}\text{F}$)
- State of the art through-the-lens diagnostic self-test
- Fast response time and long detection distance
- Patented Fire Event Analysis (FEA) algorithm for superior false-alarm immunity
- Wide viewing angles
- Designed for easy cleaning and maintenance
- All models are available with Aluminum or Stainless-Steel housing
- FM, CSA, ATEX, IECEx, SIL2, Russian fire certificate, EMC, PESO
- LVD, CSFM
- Worldwide service and support network

OMNIGUARD GAS DETECTORS



Omniguard gas detectors offer top of the line performance and quality. Well proven technology ensures high measure accuracy and long-term stability.

Omniguard gas detectors have got:

- Wide range of detectable gases
- Advanced self-test and diagnostics
- Smart programming and auto calibration
- Easy and quick installation and operation
- HART Rev 7 communication as standard
- 4-20mA output signal
- Operating temperature -40° to $+80^{\circ}\text{C}$ (-40° to $+176^{\circ}\text{F}$)
- All models are available with Aluminum or Stainless-Steel housing
- ATEX, IECEx, UL, SIL2, CE
- Worldwide service and support network

- The automatic self-test is performed every 15 minute, thereby providing vital fire detection reliability

- Optical surfaces are clean
- Function and sensitivity of the sensors

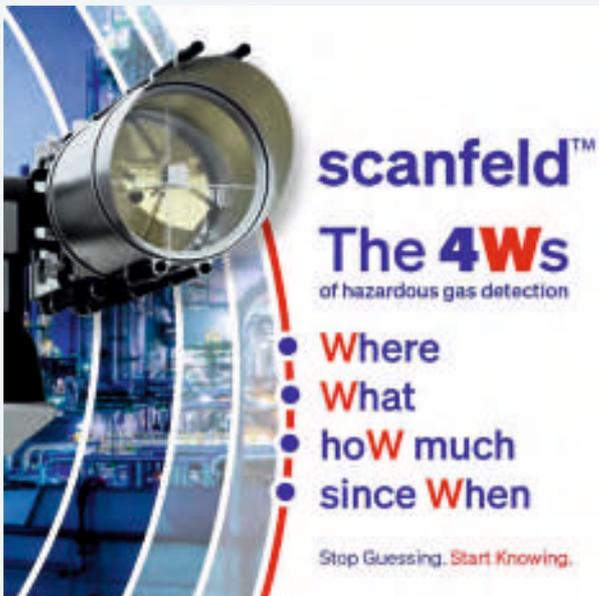


- Proper function of the electronics



Omniguard[®]
by Firefly

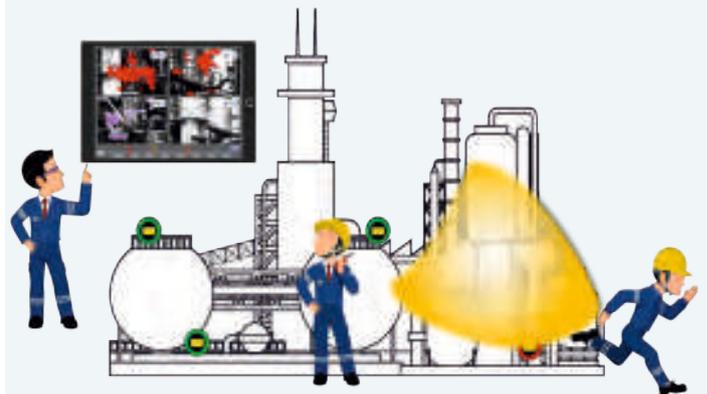
www.omniguardbyfirefly.com



With the Scanfeld system grandperspective provides the world's first early warning solution for hazardous gases that covers complete industrial sites. Based on optical sensor units that identify a multitude of chemicals from the distance we visualize and locate hazardous gas clouds and warn in real time against gas leaks and fugitive emissions.

SCANFELD™ SYSTEM OFFERS :

- Provides 360° detection for gas leak using FTIR spectroscopy sensors.
- Ultra Preventive monitoring system
- Flexible and Freely scalable solution
- Optical measurement technology
- Live visualisation and live tracking
- Chemical identification of hundreds of gases
- Detection range > 1Km
- Self Calibrating



Certified process as per VDI-4211

“...everytime I smell ammonia the operators tell me there is nothing wrong and now you see I'm not crazy...”

STOP GUESSING. START KNOWING

WITH SCANFELD™ SENSORS UNIT : FTIR SPECTROSCOPY



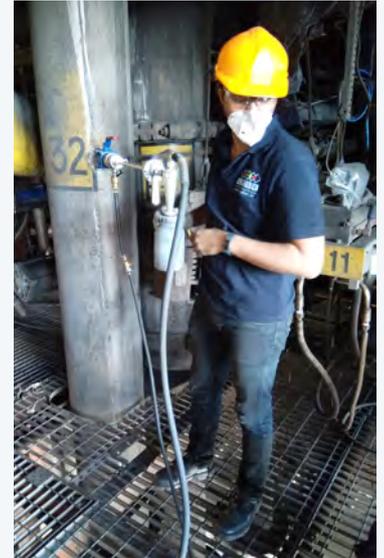
GRANDPERSPECTIVE

www.grandperspective.de

Engineering Services

Coal Flow Measurement & Testing

- Clean air testing.
- Dirty air testing.
- Isokinetic measurement of coal flow in coal pipes



Flame Ignition & Flame Monitoring Repair & Calibration

- Repair & service of flame ignition.
- Repair & service of flame monitoring systems



www.absr.in

ABOUT US

Your **Partner** for innovative Engineering Solutions.

We started the journey in 2013-14 with a vision to be a sustainable engineering conglomerate by building bridges between Indian Industry & World class technological innovations & best practices from across the world. We believe in long term partnership with our stakeholders including business partners, customers & employees. We believe in sharing knowledge with our stakeholders to make the World better for all of us.

VISION

"To become a sustainable engineering conglomerate by building bridge between Indian Industry and World Class Technological Innovations and Best Practices being followed Worldwide."



MISSION STATEMENT

"We will Engineer & provide Advance Business Solutions & resources to Indian Power & Process industries through our carefully selected product and service range to the satisfaction of our esteemed customers and we will achieve this by empowering people to grow in environment friendly way with optimal usage of natural resources."

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EMPOWERING PEOPLE

OUR CLIENTS



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www.absr.in

OUR PRINCIPALS



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