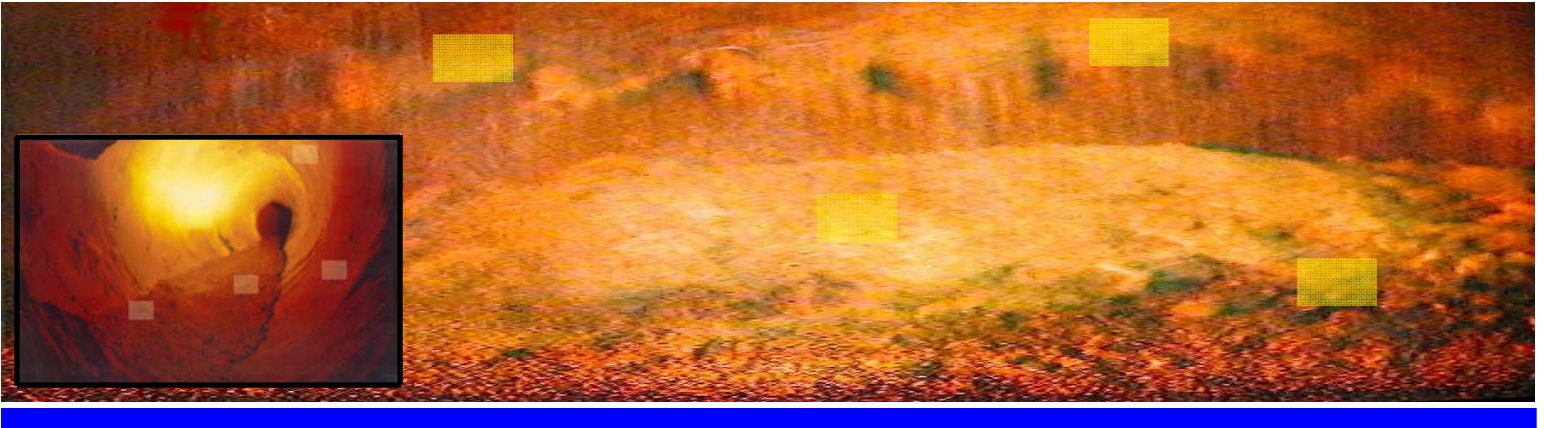


THERMAL ANALYZER

FOR NON-CONTACT TEMPERATURE MEASUREMENT



SYN-FAB®'s THERMAL ANALYZER is an on-line analytical instrument for use with **SYN-FAB®'s** infrared imaging systems. The **THERMAL ANALYZER** analyzes information provided by the infrared optical system to provide temperature data from the scene being monitored without the use of a computer.

The **SAE0031-A THERMAL ANALYZER II** transforms your high temperature camera system into an imaging pyrometer. The **THERMAL ANALYZER II** superimposes four (4) rectangular target(s) on the monitor screen and gives you the temperature of the corresponding area(s) in the scene being viewed. The **THERMAL ANALYZER II** allows you to define 1 to 4 independent areas within the field of view of the imaging system to get **multiple position temperatures**. The **THERMAL ANALYZER II** has easy to use position controls to position the target(s) anywhere on the monitor screen. The temperature of the target area is displayed on a large LED meter for quick and easy monitoring. A 1-5 VDC output is provided on each unit for recording, trending or inputting to your DCS. Optional 4-20 mA isolated outputs are also available.

SYN-FAB®'s THERMAL ANALYZER system measures the temperature inside boilers and furnaces utilizing infrared imaging systems. The theory of operation is based on the concept that all objects, greater in temperature than absolute zero, emit energy. Measurement of the temperature of an object by measuring the emitted energy is possible due to the relationship of emitted energy to temperature, i.e.; the hotter an object the greater the emitted energy. Infrared radiation is part of the electromagnetic spectrum, i.e.; x-rays, ultraviolet light, visible light, microwaves, etc. These are all forms of measurable energy which we categorize by their wavelength. The energy wavelengths corresponding to the temperatures of interest in boilers and furnaces is greater in the infrared spectrum and corresponds to temperatures from 800°F to 3500°F. **SYN-FAB®'s** SF12SP and SF12IR series imaging systems have special infrared sensors and optics that detect the energy emitted from the target area within this spectrum of interest. Part of the energy is used to produce a signal which is transformed into the image you see on the television monitor. Another part of the signal is processed by the **THERMAL ANALYZER** to give you the average temperature of the surface area targeted.

SYN-FAB® INC

HIGH TEMPERATURE & INDUSTRIAL PROCESS MONITORING SYSTEMS

7863 Schillinger Park Road • Mobile, Alabama • 36608 • USA
Phone (251) 633-4942 • Fax (251) 633-2514 • www.synfab.com