

Tech Talk

Monthly Newsletter by Spectro Group

Director's Desk

We take this opportunity to thank you each one of you for making our Newsletter a success. We are pleased to share with you the new edition of our monthly Newsletter "Tech-Talk" which is designed to be an elemental source for leading information related to developing technologies, ingenious techniques and innovative approaches. This newsletter is contemplated to underline electrifying forthcoming activities and resources of our organization.



Kuldeep Dhingra
Managing Director



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We invite you to a new paradigm created by Spectro to examine the resources on our website which includes our amplifying services using science to harness cutting-edge technology and experience the Spectro difference.

Brief about Spectro

Spectro commenced to serve in the year 1995 and during the span of 20 years, Spectro Group of companies has created a globally recognized position in the field of Testing, Calibration, Auditing, Certification, Training, Inspection, R&D, Special Purpose Equipment Designing & Manufacturing and various other activities. Steadily building a reputation for reliability and fast turnaround, the organization grew rapidly and today we feel proud to have our presence all over the country.

Results of Efforts in Curbing Pollution

Delhi government is making efforts to curb pollution in the city and the "results can be seen," said Delhi minister Satyendar Jain. The government had set up a special task force to work out ways to combat pollution in the national capital.



The PWD is cleaning roads and mud. The difference in the pollution situation can be seen. However, the air quality in the city, according to the Central Pollution Control Board, continued to remain in the 'very poor' category. The city's pollution is caused by emissions from cars and coal-based power plants, the burning of crop stubble and trash and swirling dust from construction sites and roads.

The government has also reduced the bus fares encouraging people to use public transport instead of private vehicles to address the worsening air pollution in the national capital. Commuters will now have to pay a maximum of Rs. 10 instead of Rs. 25 to travel in air conditioned buses. The maximum fare in non-air conditioned buses has been slashed from Rs. 15 to Rs. 5. This will be applicable for a month as a trial run.

Health Effects of Air Pollution:

The adverse health effects of air pollution are well established and have been reported in research studies for over 30 years. However, multiple variables make pinning down exact health outcomes to specific air pollution exposure very complicated. These variables include concentrations of air pollution and its various components, exposure time and individual response.

- Air pollution increases the risk of respiratory and heart disease.
- Both short and long term exposure to air pollutants have been associated to health impacts.
- People who are already ill are more severely impacted by air pollution.
- Children, the elderly and poor people are more susceptible to the harmful effects of air pollution.
- There is mounting evidence that exposure to air pollution has long-term effects on lung development in children.
- Outdoor air pollution is carcinogenic
- Particulate matter (PM) is the component of air pollution that causes the most damage to human health

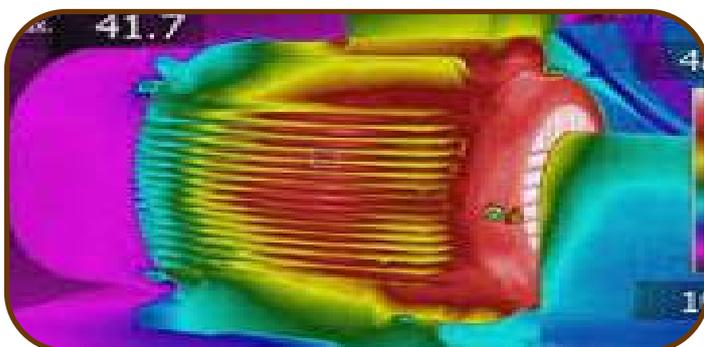
Mr. Jain, the Delhi health and PWD minister, also inaugurated a mohalla clinic at a night shelter in Shakur Basti area, officials said. Mohalla Clinics scheme is one of the flagship projects of the AAP government and currently over 100 such facilities have been set up in different areas of the national capital.



References

- NDTV
- Delhiair.org

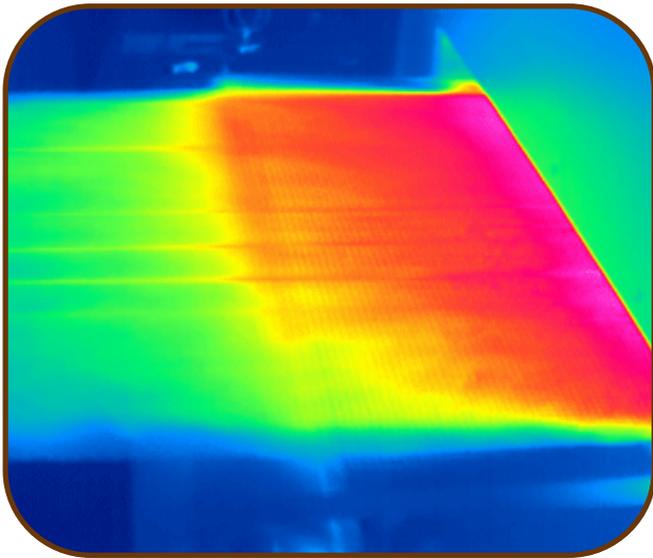
Thermography



Infrared & Thermography testing involves the use of temperature and heat flow measurement as a means to predict or analyze a failure. This may involve the use of contacting or non-contacting devices, or a combination of both.

Thermography scans using latest IR technology, with a combination of digital cameras has emerged as one of the best techniques in determining the exact locations of hot spots/areas and determination of reasons for their causes and/or source. Infrared thermography is a kind of NDT technology.

Digital pictures recorded from thermography scan are analyzed to provide detailed study on both the high temperature problem areas as well as normal temperature areas for future trending and comparisons in the form of specially designed report. The trends generated from temperature values are utilized in maintaining software's for predicting the situations that becomes a priority and what proactive solution is necessary to solve that problem.



The Objective

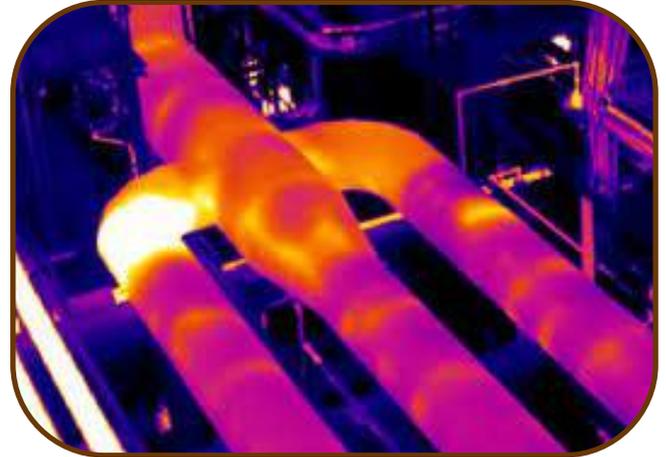
Vast losses in the industrial sector are caused by malfunctions that could be prevented.

Although damages and degradation of isolation materials and other materials are not visible, in most cases they can be solved through preventive measures.

The temperature of an object is often a sufficient indicator of the performance of the installation.

Uses

- Detection of electrical transmission line problems
- Location of Hot spots, corroded connection in electrical panel etc.
- Finds insulation efficiency in refectories and furnaces
- Energy audit for buildings and envelopes.



Application areas

Infrared or thermography testing has emerged as a powerful, versatile, and highly accurate diagnostic tool for uncovering a wide range of problems in building systems and structures, including moisture intrusion, missing or damaged insulation, overloaded circuits, faulty wiring, loose electrical connections, construction defects, and post-fire damage.

The technology is used on many applications, housing, offices, paintings, electrical installations of low and high voltage, mechanical installations (brakes, pumps etc) and of course also in the process industry to find leakages, blockages, degraded integrity, insulation and much more.

Infrared thermography cameras produce images of invisible infrared or "heat" radiation and provide precise non-contact temperature measurement capabilities. Nearly everything gets hot before it fails, making infrared cameras extremely cost-effective, valuable diagnostic tools in many diverse applications. And as industry strives to improve manufacturing efficiencies, manage energy, improve product quality, and enhance worker safety, new applications for infrared cameras continually emerge.

Spectro Group of Companies



DnG Technologies Pvt. Ltd. is one stop source for Automation services. We are promoted by a team of professionals with years of experience in the field of equipment designing and machinery automation.

- Cone Calorimeter
- UV Exposure Chamber
- Tensile Machine
- Cyclic Corrosion tester
- Xenon weather chamber

Major Activities

Testing Calibration Training Inspection R&D Automation Reverse Engineering

- ⇒ Metals & Alloys
- ⇒ Non Destructive Testing
- ⇒ Rubber & Polymers
- ⇒ Food and Agro Products
- ⇒ Coal, Solid Fuels & Petroleum
- ⇒ Electrical & Electronics
- ⇒ Pharmaceuticals & Drugs
- ⇒ Building Materials
- ⇒ Minerals & Chemicals
- ⇒ Leather & Textiles
- ⇒ Water & Environment
- ⇒ Paper & Packaging Materials
- ⇒ Hazardous Substances
- ⇒ Clean Room Validation

Our Joint Venture Labs

Project Sites

Spectro Testing & Research Center Pvt. Ltd. (Jaipur)

Chennai (Tamil Nadu)

Spectro Research Lab Ventures (P) Ltd. (Kanpur)

Roorkee (Uttarakhand)

Spectro Testing (P) Ltd. (Jammu)

Durgapur (West Bengal)

Spectro SSA Labs (P) Ltd. (Mumbai)

Jaisalmer (Rajasthan)

Spectro Global Lab Pvt. Ltd. (Bhubaneswar)

Patna (Bihar)

Ranchi (Jharkhand)



We will be pleased to receive your valuable queries, feedback and suggestions on our email ID: newsletter@spectrogroup.com

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