

PRODUCT LIST

Surveys & Consulting Provided :

Infrared Scanning

Infrared scanning is performed by a qualified thermographer with an ITC Level 3 certification and more than ten years' application specific experience. All infrared cameras are calibrated on an annual basis. Surveys include the thermographer taking both digital and thermal photos at the client's premises, downloading of images into software, matching of areas, section, measured points, etc. with photos, analysis, recommendations and risk grading of faults. Production of hard or soft copy reports as required.

Vibration Monitoring

Vibration monitoring is performed by a qualified mechanical engineer with more than ten years' experience. A route of measurement points is created in the Condition Monitoring Software and uploaded to the portable vibration data collector, which is used on-site for data collection and later download. Horizontal, vertical and axial readings are collected on bearings of all identified equipment. Velocity readings are used to assess the overall mechanical condition of the machine and detect problems such as imbalance, misalignment, mechanical looseness. Acceleration and enveloped acceleration are used to assess the condition of the rolling element bearings and gears (if any) in the application.

Impact Recording

Analysis of downloaded shock report raw data, from impact recorders, report generation and feedback.

Calibration

Facilitation of calibration and repairs, where required, to measurement instruments including anemometers, barometers, conductivity meters, contact thermometers, flow meters, flue gas analysers, heat stress monitors, hot wire anemometers, hygrometers, infrared cameras, infrared thermometers, lux meters, noise badges, noise dosimeters, oscilloscopes, pH meters, pressure meters, pitot tubes, multi meters, sound level meters, ultrasonic inspection kits, UV meters, vane anemometers, vibration meters and weather stations.

CONDITION MONITORING

Temperature

- Thermal imagers / Infrared cameras
- Infrared thermometers
- Contact thermometers and transmitters

Typical Applications –

- Preventative maintenance in electrical, mechanical, production, health care and construction.
- Spot checks using non-contact method
- On-line bearing temperature measurement

Vibration

- Portable spot checking vibration meters
- Portable vibration analysers with data collection, dual balancing, motor circuit signature analysis and phase.
- Vibration transmitters, switches and accelerometers.

Typical Applications –

- Preventative maintenance and online monitoring of critical machines such as motors, compressors, pumps, fans, crushers, vibrating screens, conveyors and rollers.

Laser Shaft Alignment and Balancing Kits

- Laser shaft alignment kits
- Vibration analysers and dynamic balancing kits

Typical Applications –

- Industrial alignment of small, medium and large sized motor / pump sets.
- Balancing of fans, rotors, motors, grinding wheels, spindles, crushers and other rotating machinery.

SF6 Detection in Electrical Switchgear

- SF6 gas leak location
- SF6 gas analysis – purity, moisture, humidity, SO2 & H2S

INTEGRITY AND NDT TOOLS

Equipment in Motion

- Xenon, LED and UV Stroboscopes, portable and fixed
- Wide view LED stroboscope arrays
- Tachometers
- Pulley and Belt tension meters
- Parallel roll alignment

NDT / Surface Inspection Tools

- Steel hardness with Leeb or UCI method
- Steel roughness
- Coating thickness gauges / DFT gauges
- Wall thickness gauges
- Surface profile gauges
- Durometers / Shore hardness testers
- Pin hole / Holiday Detectors
- Pull off adhesion testers
- Concrete rebound hammers
- Rebar location and corrosion
- Bolt tension
- Portable XRF Analyser

Typical Applications –

- Inspection of rotating and moving equipment for imbalance, damage and cracks on fans, v belts and couplings.
- For observation and inspection in printing, labelling, steel processing and label-printing applications.
- Measure non-contact, static tension of flat, ribbed, V belts and pulleys
- Align rollers up to 2.4m in diameter and up to 3m apart
- Measure hardness on pipes, thin parts, gears, sheets.
- Roughness in Ra : 0.005 ~ 16.000µm, Rz: 0.02 ~ 160.00µm
- Powder coating, spray painting, zinc coating, galvanizing, epoxy on steel.
- Thickness of steel, glass and HDPE
- Measure peaks and valleys steel surfaces
- Shore A, B, C, D, DO, O, OO, for rubber, plastics, textiles, sponges
- Detection of paint pin holes and irregularities in coated surfaces.
- Quality inspection of paint, coatings and bond strength in steel and concrete
- Concrete strength and integrity tester
- Locate rebar within concrete and measure corrosion
- Measure bolt elongation, load, stress or strain over its lifespan.
- Non-destructive Positive Material Identification (PMI) of multiple metals and alloys.

INSPECTION AND DETECTION

Underground Services

- Buried cable avoidance tools
- Energised / Live cable and metal pipe locators
- Non energised / Dead cable and metal pipe locators
- Surge generators, Cable fault pre-locators / TDR, Cable fault pinpointers
- Water leak locators
- Drain Pipe Inspection cameras

Typical Applications –

- Locate live cables buried up to 6m deep.
- Locate live cables up to 6m or 10m deep and metallic pipes
- Locate live and dead cables up to 6m or 10m deep and metal pipes.
- 32KV thumpers, TDR pre-cable fault locators to 400mm and fault pinpointers to 100mm
- Locate water leaks in walls, under tar, concrete and earth, in metal, asbestos, concrete and plastic pipes.
- Drain, man hole, pipe inspection cameras.

Flow

- Doppler and ultrasonic flow meters, portable and fixed

Electrical

- Portable Current Transformer Test Equipment
- Transformer DC Resistance Tester
- Power Analysers with and without harmonics
- Insulation testers

Oil Analysis

- Online or portable moisture, water activity, density, temperature, dielectric constant, viscosity in oil.
- Online oil pollution degree sensors
- XRF Sulphur in oil analyser

ENVIRONMENTAL MEASUREMENT

Combustion Monitoring

- Flue gas analysers

Typical Applications –

- Boilers, burners, biogas, incinerators, furnaces and generators.

Environmental Testing and Personnel Safety

- VOC gas detection with PID's
- Insitu Ground gas monitoring
- Single gas transmitters
- Benzene and total aromatic compound detectors
- Mercury vapour detectors
- SF₆ leak detection
- Hydrogen, helium and refrigerant detectors

Typical Applications –

- Air quality, personnel VOC exposure, land remediation, environmental testing, manufacturing, CO₂ sequestration, arson investigation.
- Methane, carbon dioxide, oxygen, hydrogen sulphide and VOC ground gas monitoring equipment.
- Safety, process, environmental testing, air quality, gas line leakage with display or without, with Cloud based access (optional)
- Personal or portable measurement of environmental Benzene and TAC's
- Mercury clean up, exposure and process monitoring.
- Gas insulated switchgear, ring main units, MV switchgear leak detection
- Leak detection of helium or hydrogen in turbines and maintenance thereof. Air conditioning, fridge plants and cooling systems.
- O₂, SO₂, H₂S, CO and VOC wearable gas monitors, Lightning detectors, Lux, sound, wind, heatstress, water quality, conductivity, TDS, PH and turbidity

Personal monitors

IMPACT AND EVENT RECORDING

Re-usable Electronic Impact recorders

- Triaxial shock, temperature, pressure, humidity, lux and GPS co-ordinate impact recorders.
- Real time impact recording with email communication of cargo in transit, via satellite.

Typical Applications –

- Recording of multiple parameters but at the least triaxial shock and temperature of sensitive cargo in transit downloaded post trip, with date and time stamp of incidents that occurred during the trip.
- Live transmission of impacts / incidents that occur during transportation of cargo viewable on Google Earth and via web based portal.