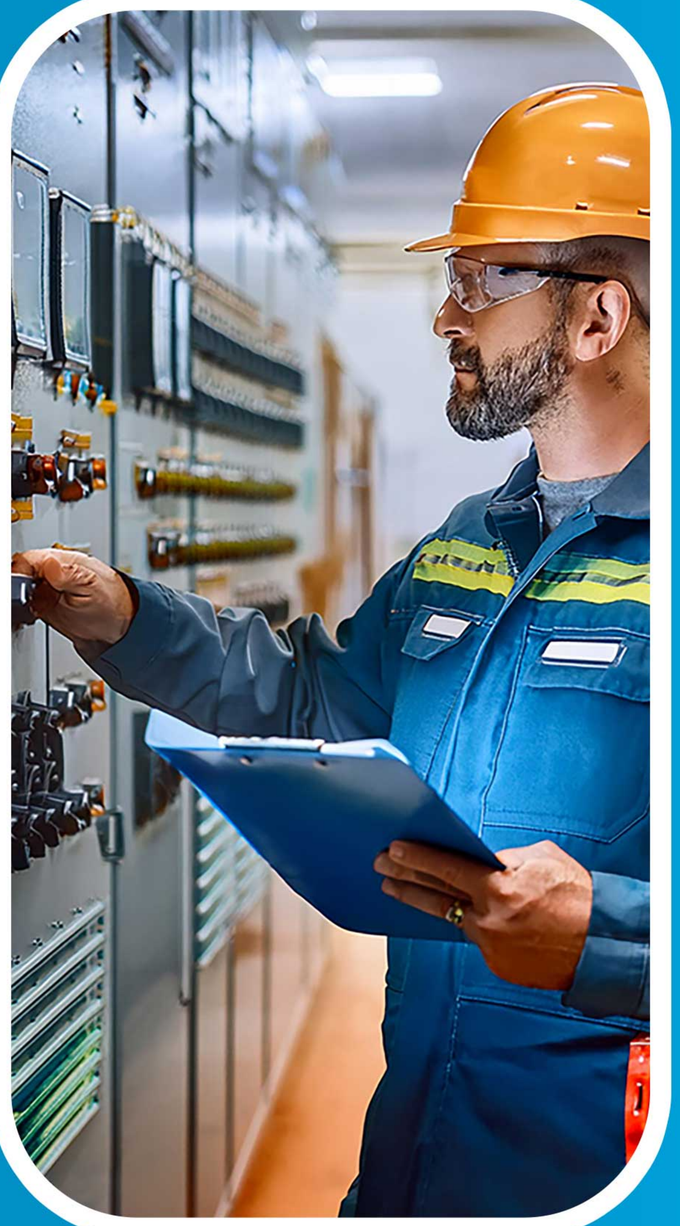
NFPA®
AUTHORIZED
TRAINING
PROVIDER

fantek
PRIVATE LIMITED

www.fan-tek.com



INTRODUCTION:

Fantek Private Limited is a premier engineering services company dedicated to delivering exceptional solutions across various engineering disciplines. Our core services include consultancy, testing, inspection, training, digitalization and certifications in Mechanical, Civil, and Electrical engineering.

At Fantek, we pride ourselves on our team of highly qualified and experienced professionals. Our experts are not only certified in their respective fields but are also committed to understanding and exceeding the expectations of our clients. We utilize the latest equipment and cutting-edge techniques to ensure precision, reliability, and innovation in every project we undertake.

Our mission is to provide excellence in every aspect of our services, fostering trust and confidence in our clients as we help them navigate complex engineering challenges. Whether it's a large-scale industrial project or a specialized technical requirement, Fantek is here to support your goals and drive responsible progress.

Partner with us and experience the difference in quality, expertise, and commitment that sets us apart in the engineering industry.

OUR VALUES

INTEGRITY

CARE

TEAMWORK

OWNERSHIP

CONTINUOUS IMPROVEMENT

OUR MISSION:

Our goal is to mitigate risks, enhance our clients performance, and support their innovation efforts to confidently address their needs.

OUR VISION:

Our objective is to earn recognition from our customers by ensuring responsible progress as their trusted partner.

NFPA® AUTHORIZED TRAINING PROVIDER

OUR SERVICES

Fantek Academy

Electrical Services

Reliability

Industrial Services

Lifting Equipment & Gears

Fire Safety Services

Fantek Digital

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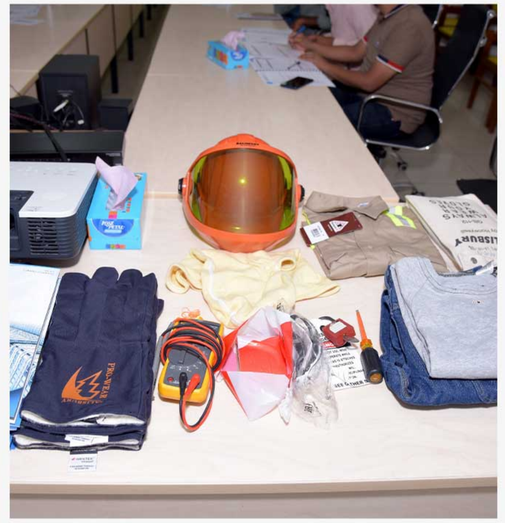
FANTEK ACADEMY

FANTEK ACADEMY:

Fantek Private Limited is a recognized NFPA Authorized Training Provider, offering specialized training services in electrical and fire safety. Our programs are led by NFPA Approved Instructors, ensuring the highest standards of knowledge transfer and compliance with international safety codes. We have successfully delivered numerous sessions tailored to the needs of industrial clients, supporting their goals for improved workplace safety and regulatory alignment.

In addition to our core NFPA training services, Fantek provides a broad portfolio of certified training programs across Health, Safety & Environment (HSE), Mechanical Systems, Reliability Engineering, and Industrial Digitalization. With a team of qualified and experienced trainers, we are committed to equipping professionals with practical, up-to-date skills essential for operational excellence and sustainable performance in today's evolving industrial environments.



NFPA AUTHORIZED EDUCATION NETWORK COURSES

NFPA CERTIFICATION PREPARATION

Certified Fire Protection Specialist Primer (CFPS)

Certified Fire Inspector I

Certified Fire Inspector II

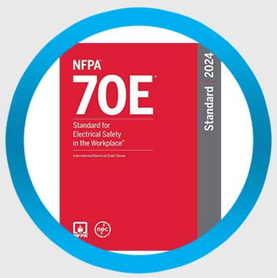
Certified Fire Plan Examiner (CFPE)

Certified Electrical Inspector

Certified Electrical Safety Compliance Professional

ELECTRICAL SAFETY

NFPA 70, National Electrical Code (NEC) Essentials (2023 edition)



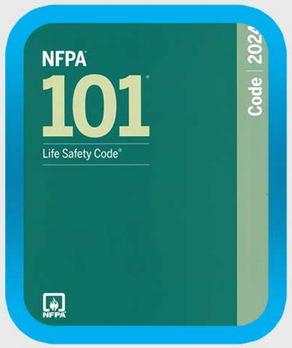
NFPA 70E, Electrical Safety in the Workplace (2024 edition; 1 and 2-day)

Analysis of NEC Changes

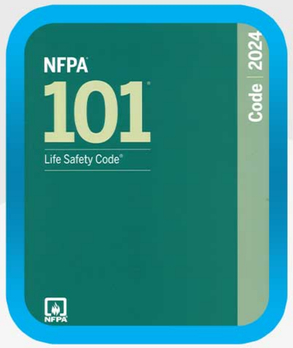
NFPA AUTHORIZED EDUCATION NETWORK COURSES

LIFE SAFETY TRAINING

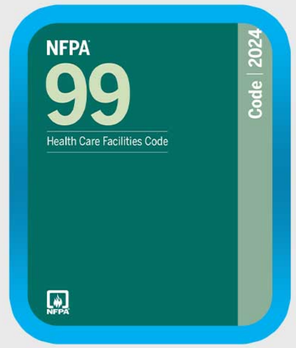
NFPA 1, Fire Code (2021 edition)



NFPA 101, Life Safety Code Essentials (2024 edition)



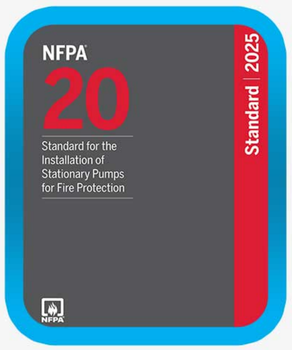
NFPA 101, Life Safety Code Essentials for Health Care Occupancies (2024 edition)



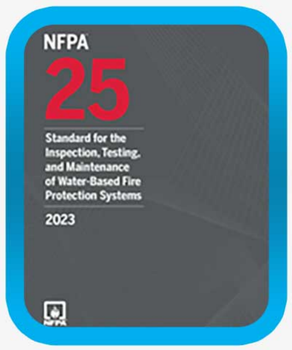
NFPA 99, Health Care Facilities Code (2024 edition)

FIRE PROTECTION SYSTEMS

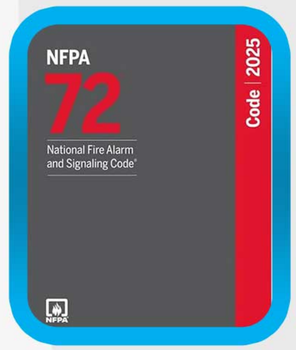
NFPA 13 Installation of Sprinkler Systems (2025 edition)



NFPA 20 Fire Pumps (2025 edition)



NFPA 25 Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems (2023 edition)

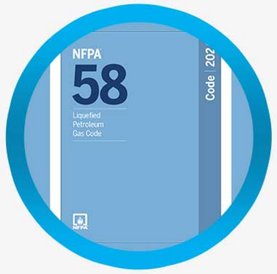


NFPA 72, National Fire Alarm & Signaling Code (2025 edition)

NFPA AUTHORIZED EDUCATION NETWORK COURSES

INDUSTRIAL AND CHEMICAL HAZARDS

NFPA 30, Flammable and Combustible Liquids Code (2024 edition)



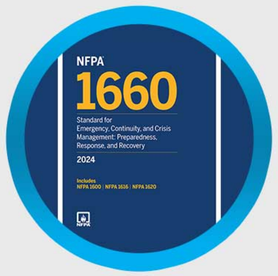
NFPA 58, LP-Gas Code (2024 edition)

NFPA 400, Hazardous Materials Code (2022 edition)

ADDITIONAL TRAINING

Assessing Structure Ignition Potential from Wildfire

Hot Work Safety

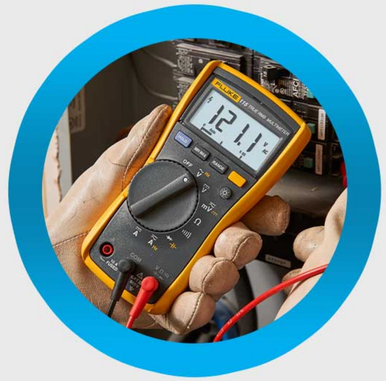


NFPA 1660, Emergency, Continuity, & Crisis Management: Preparedness, Response, and Recovery(2024 edition)

FANTEK ACADEMY

OTHER COURSES

ELECTRICAL ENGINEERING FOR NON-ELECTRICAL ENGINEERS

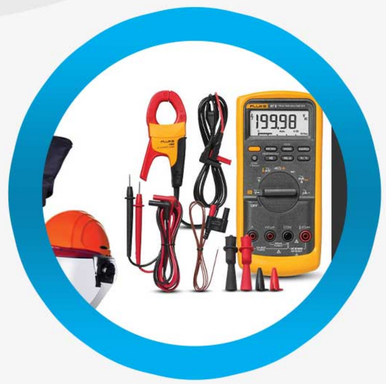


ELECTRICAL MEASUREMENT SAFETY

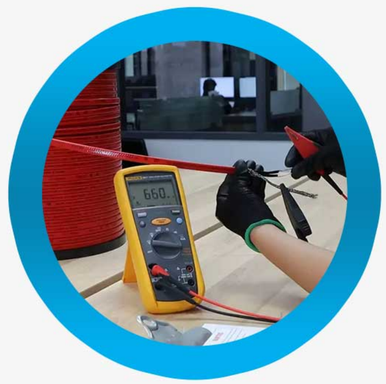
ELECTRICAL MOTORS - INSPECTION &TROUBLESHOOTING

CIRCUIT BREAKERS & SWITCHGEARS - INSPECTION & TESTING

GROUNDING & BONDING



INSPECTION & TESTING OF ELECTRICAL PPES



INSULATION TESTING BASICS

POWER SYSTEM STUDIES

FANTEK ACADEMY

OTHER COURSES

QUALIFIED ELECTRICAL WORKER

ASME TRAININGS

ASNT COURSES

BASICS OF METALLURGY

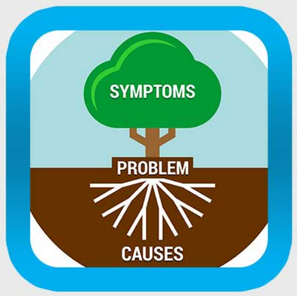
MACHINE LUBRICATION ANALYSIS

VIBRATION ANALYSIS

ISO 9001

ISO 14001

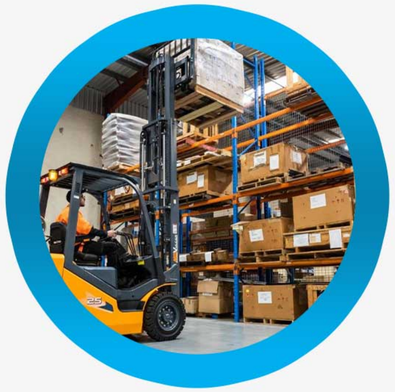
ISO 45001



ROOT CAUSE ANALYSIS

OTHER COURSES

FIRST AID & CPR



FIRST AID & CPR

INDUSTRIAL PLANT SAFETY

JOB HAZARD ANALYSIS

RADIATION SAFETY

RIGGER TRAINING & CERTIFICATION

OTHER COURSES

API COURSES

ASSOCIATE SAFETY PROFESSIONAL

AUTHORIZED GAS TESTER

CERTIFIED SAFETY PROFESSIONAL

CHEMICAL HANDLING, STORAGE & LIFTING

CONFINED SPACE ENTRY

CONSTRUCTION SAFETY

FALL PREVENTION

ELECTRICAL SERVICES

ELECTRICAL SAFETY AUDITS:

Fantek Private Limited Offer Electrical Safety Audits of industrial, commercial & residential buildings. We use a systematic process based on NFPA standards that evaluates the safety of electrical installations, equipment, and systems within a facility. Our primary aim is to identify potential electrical hazards, ensure compliance with safety regulations and standards, and recommend improvements to prevent electrical accidents, fires, flash overs, and equipment failures. The audit typically involves:

Inspection:

Thorough examination of electrical systems including wiring, switchboards, transformers, and other electrical components.

Testing:

Conducting tests on electrical equipment to check for proper functioning, insulation resistance, grounding, and load capacity.

Documentation Review:

Analyzing existing documentation, such as maintenance records, safety procedures, and previous audit reports.

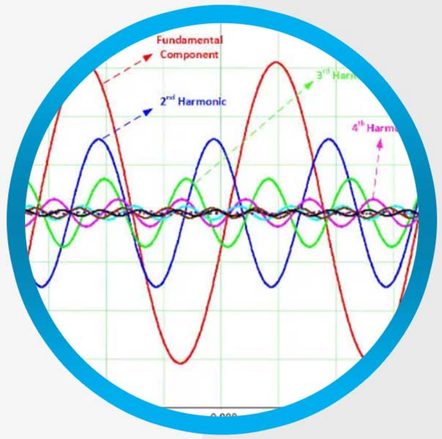
ELECTRICAL SERVICES

Risk Assessment

Identifying areas of potential risk and assessing the likelihood and impact of electrical haz ards.

Compliance Check

Ensuring that the electrical sys- tems meet local, national, and international safety standards and regulations.



Reporting

Providing a detailed report with findings, risk assessments, and recommendations for correc tive actions and improvements.

Overall, we help organizations enhance safety, prevent costly disruptions, and protect personnel and property from electrical hazards.

POWER SYSTEM STUDIES:

Fantek Private Limited offer comprehensive Power System Studies to evaluate the performance, safety, and reliability of electrical power systems. We help organizations understanding the behavior of the power system under various operating conditions and identifying potential issues that could affect its efficiency and safety. Key components of Power System Studies include:

Load Flow Analysis:

To determines the voltage, current, and power flows in the power system under steady-state conditions. This helps in planning and optimizing the operation of the system.

Short-Circuit Analysis:

Evaluate the power system's ability to remain stable under transient conditions, such as sudden changes in load or generation, and during faults.

Stability Studies:

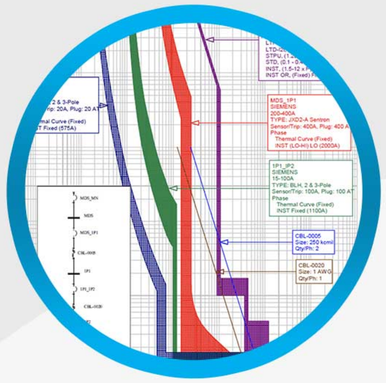
Evaluate the power system's ability to remain stable under transient conditions, such as sudden changes in load or generation, and during faults.

Arc Flash Study:

Analyzes the potential incident energy released during an arc flash event, helping to implement proper safety measures and labeling equipment to protect personnel.

Harmonic Analysis:

Identifies and analyzes harmonic distortions in the power system caused by non-linear loads, ensuring the system operates within acceptable harmonic limits.



Protection Coordination Study:

Ensures that protective devices, such as relays and circuit breakers, are properly coordinated to isolate faults while minimizing disruption to the rest of the system.

Power Quality Analysis:

Evaluates issues related to voltage sags, swells, transients, and interruptions, helping to improve the overall quality of power supply.

Batteries & Battery Rooms:

Fantek Private Limited provide your battery rooms thorough examination of the environment, equipment, and practices associated with battery storage and maintenance. We ensure safety, compliance with regulations, and optimal performance of the batteries. Key aspects of a battery room analysis include:

Environmental Conditions:

Checking the ventilation, temperature control, and humidity levels to ensure they meet the requirements for battery storage.

Safety Equipment:

Ensuring the availability and proper functioning of safety equipment such as eye wash stations, fire extinguishers, and spill containment kits.

Electrical Safety:

Inspecting the electrical installations, including wiring, circuit breakers, and grounding, to prevent electrical hazards.

Signage and Labeling:

Verifying that all safety signs and labels are in compliance with NFPA standard(s), such as warning signs, emergency exit signs, and hazard labels, are clearly visible and correctly placed.

Battery Condition:

Assessing the physical condition of the batteries, including checking for leaks, corrosion, and proper electrolyte levels.

Maintenance Practices:

Reviewing maintenance records and practices to ensure that regular inspections, cleaning, and testing are being conducted as per the manufacturer's recommendations and industry standards.

Compliance:

Ensuring that the battery room complies with relevant standards and regulations, such as those set by the National Fire Protection Association (NFPA) and the Occupational Safety and Health Administration (OSHA).

Tools:

Verification of the non-sparking tools availability & their size appropriateness according to the batteries.

Training

Checking that personnel handling the batteries are adequately trained in safety procedures, emergency response, and proper handling tech niques.

Emergency Preparedness

Reviewing emergency procedures and ensuring that all personnel are aware of the actions to take in case of an emergency, such as a battery spill or fire.

Documentation

Ensuring that all necessary documentation, including maintenance logs, safety data sheets (SDS), and inspection reports, are up to date and easily ac cessible.

By conducting a comprehensive analysis of your battery rooms, you can identify potential risks, enhance safety, and ensure compliance with safety standards and regulations.

ELECTRICAL SAFETY PROGRAM (ESP):

Fantek Private Limited offer expertise to develop a comprehensive Electrical Safety Program (ESP) of your facility based on the latest edition of NFPA-70E to ensure the safe installation, operation, and maintenance of electrical systems. ESP goals are to protect personnel from electrical hazards, prevent electrical accidents, and comply with relevant safety regulations and standards. Key components of an Electrical Safety Program could include:

Policy and Objectives:

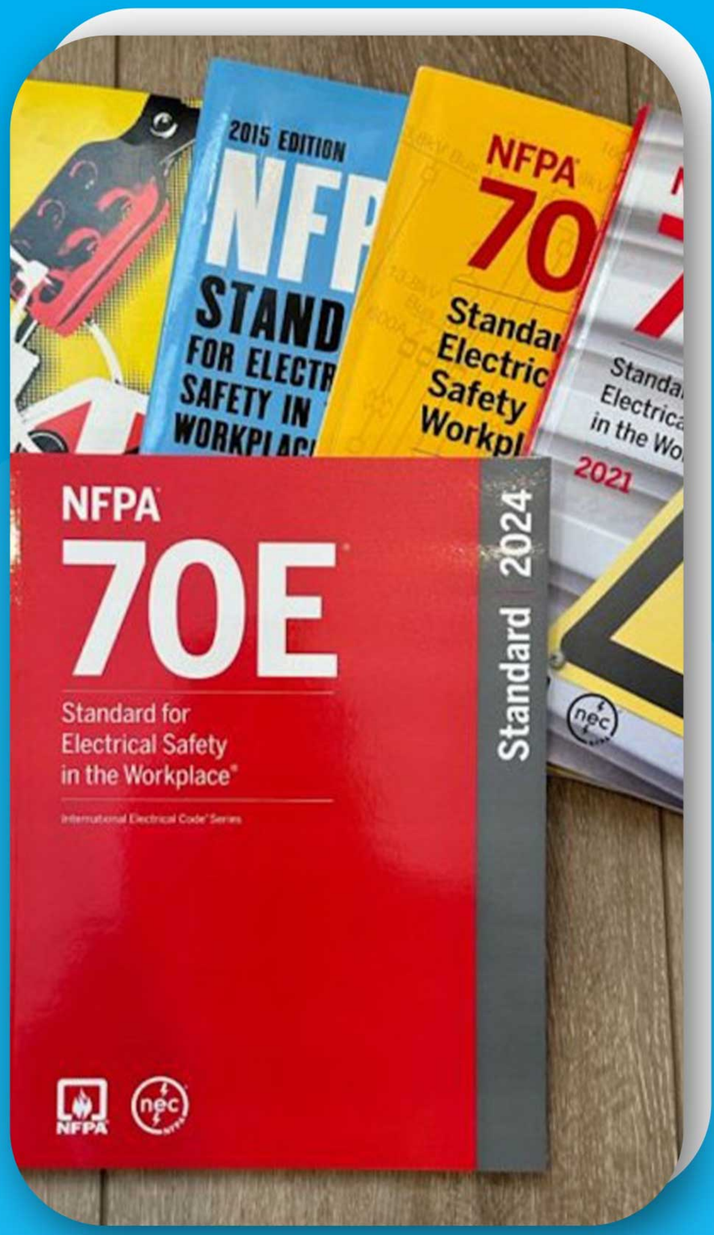
Thorough examination of electrical systems including wiring, switchboards, transformers, and other electrical components.

Risk Assessment:

Identifying potential electrical hazards, evaluating the risks, and implementing measures to mitigate them.

Training and Education:

Providing regular training sessions for employees on electrical safety practices, hazard recognition, and emergency procedures. This includes training for both qualified electrical workers and non-electrical personnel.



Safe Work Practices:

Establishing and enforcing safe work practices, such as proper use of personal protective equipment (PPE), lockout/tagout (LOTO) procedures, and safe installation and maintenance techniques.

Electrical Safety Procedures:

Developing detailed procedures for various tasks, including Safe Work Instructions (SWI), Job Safety Analysis (JSA) forms, electrical work permits, and job briefing checklists.

Inspection and Maintenance:

Conducting regular inspections and maintenance of electrical systems and equipment to ensure they are in good working condition and free of hazards.

Incident Reporting and Investigation:

Implementing a system for reporting electrical incidents and near-misses, investigating their causes, and taking corrective actions to prevent recurrence.

Emergency Response:

Establishing and training personnel on emergency response procedures for electrical incidents, including electrical shock and arc flash incidents.

Documentation and Record Keeping:

Maintaining detailed records of risk assessments, training sessions, inspections, maintenance activities, incident reports, and corrective actions.

Compliance and Standards:

Ensuring that all electrical work complies with relevant local, national, and international safety standards and regulations, such as those set by the National Fire Protection Association (NFPA) and the Occupational Safety and Health Administration (OSHA). This include the audits of LOTO Program & Field Safety Audits (FSAs).

Continuous Improvement:

Regularly reviewing and updating the Electrical Safety Program to incorporate new safety practices, technologies, and regulatory changes.

By taking our services to implement a robust Electrical Safety Program, you can significantly reduce the risk of electrical accidents, protect their employees, and ensure compliance with safety regulations.

TRANSFORMER TESTING:

Fantek Private Limited offer the testing services for transformer having a series of procedures and assessments designed to ensure that transformers operate efficiently, safely, and reliably. These tests can be conducted during manufacturing, installation, and throughout the transformer's operational life. Our transformer tests include:

Insulation Resistance Test:

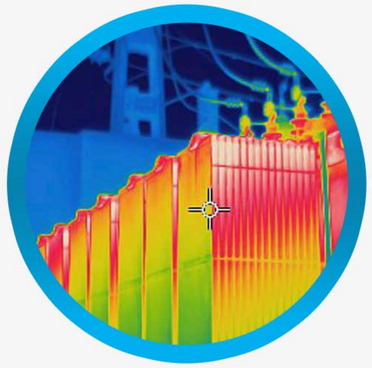
Measures the resistance of the insulation between the transformer's windings and the ground to detect any potential insulation breakdowns or deterioration.

Turns Ratio Test:

Verifies the ratio of the number of turns in the primary winding to the number of turns in the secondary winding, ensuring that the transformer is correctly constructed and will operate at the desired voltage levels.

Power Factor Testing:

Assesses the power factor of the transformer, which helps in identifying insulation deterioration, moisture ingress, and other issues that can affect efficiency and reliability.



Thermal Imaging:

Uses infrared cameras to detect hot spots and uneven heating in the transformer, which can indicate issues such as poor connections, overloads, or cooling system failures.

Load Tap Changer (LTC) Testing:

Evaluates the operation and condition of the LTC, ensuring it can adjust the transformer's output voltage as required under varying load conditions.

Polarity and Phase Relation Test:

Ensures that the transformer’s polarity and phase relationships are correct, which is crucial for proper system integration and operation.

Winding Resistance Test:

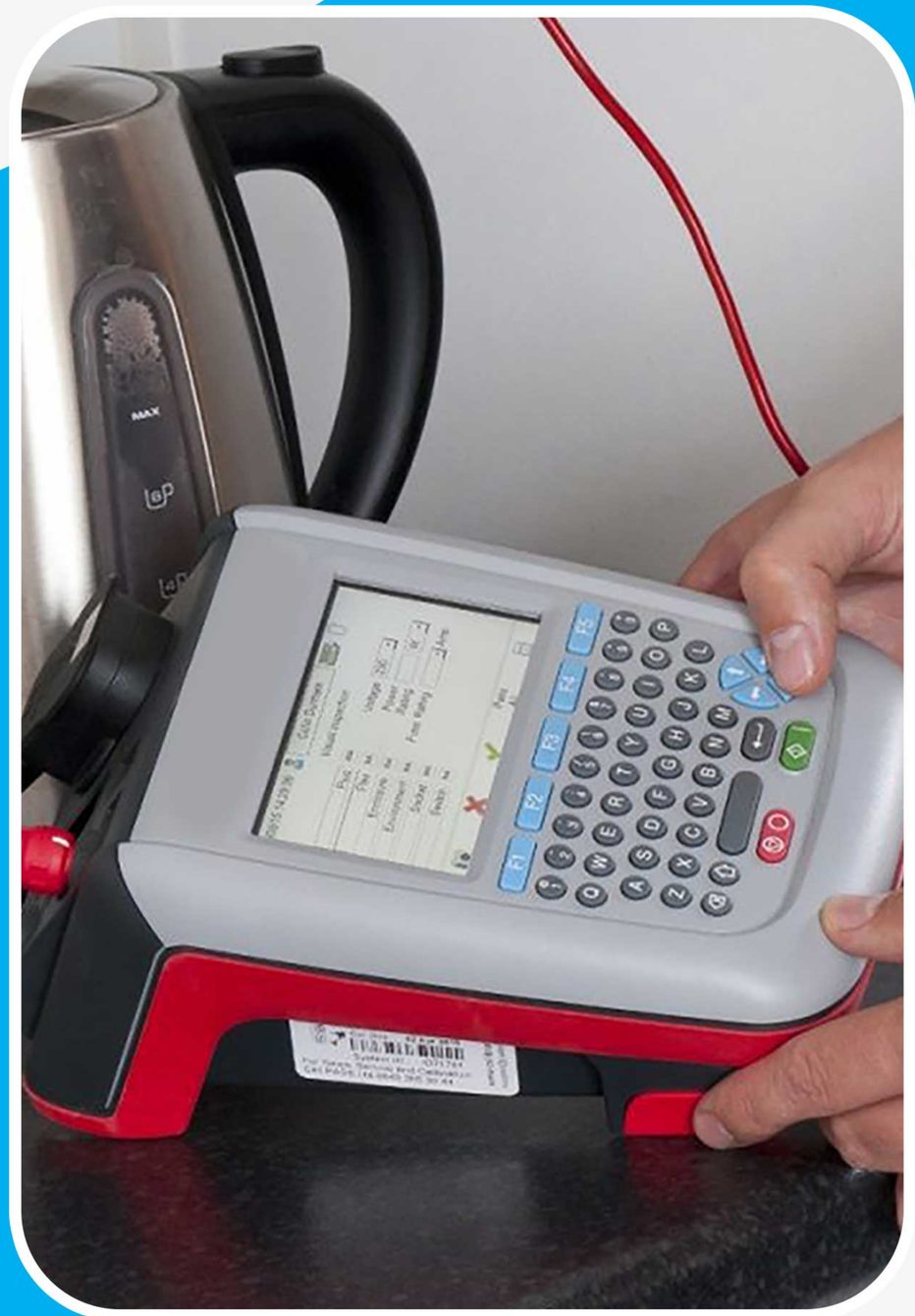
Transformer Winding Resistance Test is a diagnostic procedure used to measure the electrical resistance of the windings in a transformer. This test helps identify issues such as shorted turns, open circuits, and poor electrical connections. It is typically conducted as part of routine maintenance, during commissioning, or after a transformer has experienced an unusual event such as a fault.

Dielectric Tests:

Applied Voltage Test: Applies a high voltage to the windings to check for insulation strength and the ability to withstand operational stresses.

Induced Voltage Test: Tests the transformer's insulation under higher frequencies to ensure it can handle over-voltages.

By taking our transformer testing services, you can ensure that transformers are operating optimally, identify potential problems early, and extend the lifespan of these critical components. Regular transformer testing is essential for maintaining the reliability and safety of electrical power systems.



PORTABLE APPLIANCE TESTING:

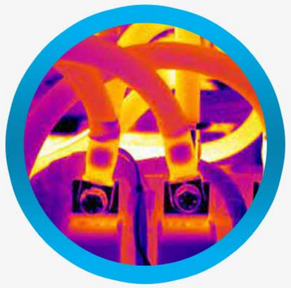
Our Portable Appliance Testing (PAT) help you to verify the safety of electrical appliances used in various environments, including workplaces, rental properties, and public facilities. The primary goal of our PAT is to ensure that portable electrical equipment is safe to use, minimizing the risk of electrical shocks, fires, or other hazards. Our PAT testing include visual inspection, functional checks, performance evaluation along with reporting & labelling of your equipment.

RELIABILITY

RELIABILITY

INFRARED THERMAL IMAGING:

Fantek Private Limited is equipped with world's leading Infrared thermal imaging cameras. We use our equipment as a non-invasive diagnostic technique to detect and visualize heat patterns and temperature variations in objects and systems. We apply this methodology in various industries for preventive maintenance, quality control, and safety inspections. Here's a detailed overview of infrared thermal imaging services:

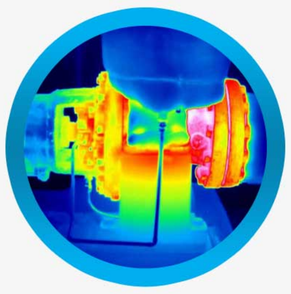


Electrical Systems:

Inspecting Electrical Panels and Connections: Detects loose connections, overloaded circuits, and failing components by identifying abnormal heat patterns.

Transformers: Identifies overheating in transformer windings, bushings, and connections.

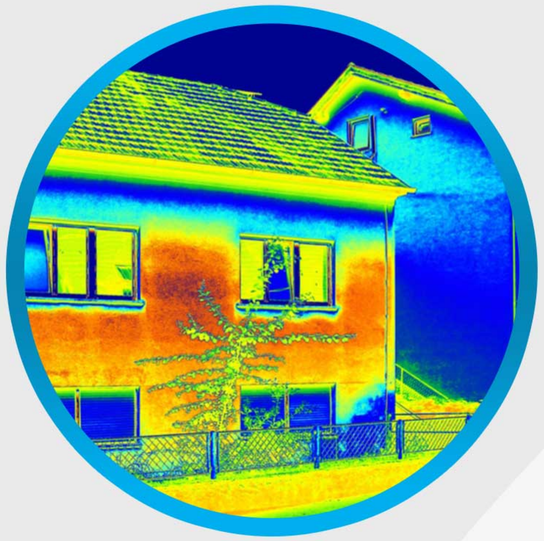
Motors and Drives: Monitors motor windings and bearings for overheating due to friction or electrical faults.



Mechanical Systems:

Bearings and Gearboxes: Detects overheating due to friction, misalignment, or lubrication issues.

Conveyor Belts and Rollers: Identifies areas of excessive friction or misalignment.



Building Inspections

Heat Loss Detection: Identifies poorly insulated areas, air leaks, and thermal bridges in building envelopes.

Moisture Intrusion: Detects areas of moisture accumulation that may not be visible to the naked eye.

Process Industry

Piping and Tanks: Monitors the temperature of pipes and tanks to ensure proper insulation and detect blockages or leaks.

Production Lines: Inspects production equipment for overheating components that could lead to downtime or defects.

Infrared thermal imaging is one of our powerful tool to help you maintaining the reliability, safety, and efficiency of electrical and mechanical systems. By providing early detection of potential issues, we can helps you in proactive maintenance and ensuring optimal performance.

VIBRATION ANALYSIS:

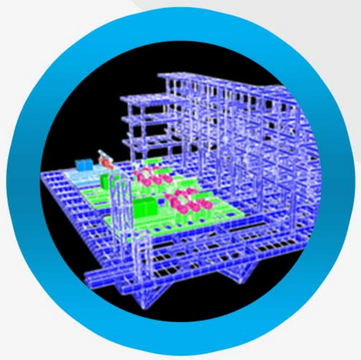
Fantek Private Limited offer the Vibration analysis services as a diagnostic tool to monitor the condition of your machinery and help you detect potential problems before they lead to equipment failure. By analyzing the vibrations produced by mechanical systems, our professionals can identify imbalances, misalignments, bearing failures, and other issues that may affect the performance and lifespan of machinery. Here's an overview of our vibration analysis service areas.

Rotating Machinery:

- **Motors and Generators:** Monitors for imbalance, misalignment, and bearing wear.
- **Pumps and Fans:** Detects cavitation, impeller wear, and imbalance.
- **Gearboxes:** Identifies gear wear, misalignment, and lubrication issues.

Bearing Analysis:

- **Fault Detection:** Identifies bearing faults such as spalling, pitting, and lubrication failure.
- **Wear Monitoring:** Tracks the progression of bearing wear over time.



Structural Monitoring:

- **Bridges and Buildings:** Monitors structural integrity and detects vibrations caused by external forces such as wind or traffic.
- **Machinery Foundations:** Ensures the stability of machinery bases and supports.

Turbines:

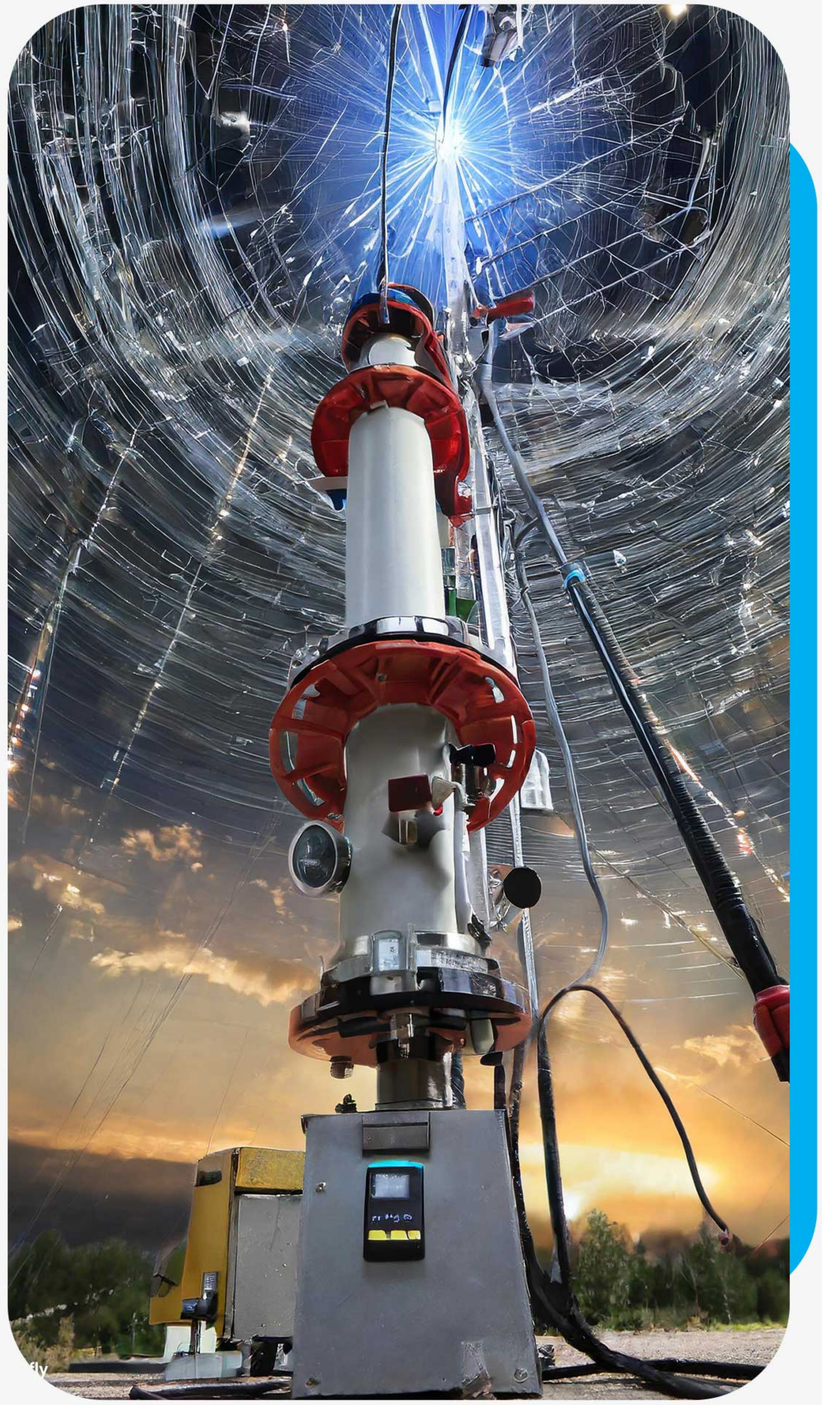
- **Wind Turbines:** Monitors blade balance, gearbox health, and bearing condition.
- **Steam and Gas Turbines:** Detects rotor imbalances, misalignments, and bearing issues.

By hiring our vibration analysis services as a part of your predictive maintenance strategy, you can ensure the reliability and longevity of your machinery, ultimately leading to improved operational efficiency and reduced maintenance costs.

RELIABILITY

ELECTROMAGNETIC FIELD STRENGTH ANALYSIS:

Our Electromagnetic Field (EMF) Strength Analysis service help you in measuring and assessing the intensity of electromagnetic fields in various environments. Our analysis is crucial for evaluating potential exposure levels to EMF, ensuring compliance with safety standards, and identifying areas where electromagnetic interference (EMI) could affect sensitive equipment or individuals. Here's an overview of our EMF Strength Analysis services.



Telecommunications:

- **Cellular Towers:** Measures EMF levels around cell towers to ensure compliance with safety regulations and address community concerns.

- **Wi-Fi Networks:** Evaluates EMF emissions from wireless routers and access points to ensure safe levels of exposure.

Power Lines and Substations:

- **High-Voltage Power Lines:** Assesses EMF strength near power lines and substations to mitigate exposure risks for nearby residents and workers.

- **Transformer Stations:** Measures EMF emissions from transformers to ensure they are within safe limits and do not interfere with nearby electronic equipment.

Industrial Environments:

- **Manufacturing Facilities:** Evaluates EMF levels in industrial settings to protect workers from potential health risks and ensure compliance with occupational safety regulations.

- **Electric Vehicles:** Analyzes EMF emissions from charging stations and electric vehicles to assess potential exposure risks.

Research and Development:

- **Medical Devices:** Evaluates EMF emissions from medical equipment such as MRI machines to ensure patient safety and operational efficiency.

- **Laboratory Settings:** Measures EMF levels in research laboratories to prevent interference with sensitive scientific experiments and equipment.

Our EMF Strength Analysis can play a crucial role in safeguarding your employees/public health, ensuring environmental protection, and promoting electromagnetic compatibility across your facility.

RELIABILITY

INDUSTRIAL SERVICES

MANPOWER SUPPORT:

Fantek Private Limited offers the following types of manpower for various projects:

- Inspection Engineers
- Plant and Equipment Inspectors
- Welding Inspectors
- NDT Technicians

Our inspection team works for pre-shutdown preparation. During shutdown our inspectors perform:

- Initial Inspection
- Reporting of Deterioration
- Preparation of Repair Procedures and Recommendations
- Follow-up of Repairs
- Final Inspection
- Preparation of Final Inspection Report as per API 510 and API 570

ON-STREAM INSPECTION

- Extraction of Isometric Drawing
- Marking of TML Locations
- Performance Review of Ultrasonic Thickness Measurement
- Preparation of Final Report as per API 510, API 570 and related client standard

IN-SERVICE INSPECTION

In-Service inspection of plant piping & equipment as per API 510, 570 & 653.

RISK-BASED INSPECTION

VENDOR INSPECTION AND EXPEDITING

MFL TANK BOTTOM FLOOR TESTING

Fantek Private Limited offers you a quick and reliable inspection service by combining two techniques; Magnetic Flux Leakage (MFL) and Ultrasonic Testing.

By using these two techniques the corrosion on the tank bottom floor can be detected and those corroded areas can be repaired as per API 653.

Fantek Private Limited also uses TesTex Falcon S series Saturated Low Frequency Eddy Current testing technique which has the ability to differentiate both top and bottom side flaws, even through coatings.

GUIDED WAVE ULTRASONIC TESTING

Fantek Private Limited offers Guided Wave Ultrasonic Testing (GWUT) using the Teletest Focus pipe inspection system. We can inspection above and underground pipelines from a single sensor position.

We can test up to 60 meters from each position saving time and reducing costs.

TIME OF FLIGHT DIFFRACTION (TOFD)

Fantek Private Limited provides ultrasonic ToFD services to inspect welds of process vessels and piping. ToFD is a reliable and quickly advancing ultrasonic technique with good sizing capabilities and higher inspection speed.

PHASED ARRAY ULTRASONIC TESTING

Fantek Private Limited provides ultrasonic phased array testing to inspect welds of process equipment, piping and structures. Ultrasonic phased arrays offer very reliable detection and sizing capabilities along with a permanent record of ultrasonic inspection.

VACUUM BOX TESTING

Fantek Private Limited offers the Vacuum box testing as an essential method for detecting leaks in tank floors and other structures. Hidden defects, such as leaks and discontinuities, can pose significant challenges to your storage tanks. These issues can lead to structural failures, resulting in costly repairs, production losses, environmental damage, and safety risks for personnel.

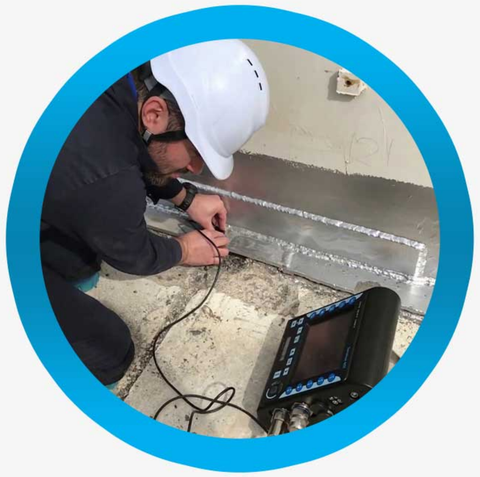
Please contact us to discuss your third-party inspection requirements or to arrange a vacuum box testing inspection.

INDUSTRIAL SERVICES

TANK CALIBRATION

Fantek Private Limited is providing Calibration of Tanks as a crucial process for ensuring accurate volume measurements in your storage tanks. Hidden inaccuracies in tank calibration can lead to significant problems for plant operators, including incorrect inventory assessments, financial discrepancies, and potential safety risks. These issues can result in costly adjustments, production inefficiencies, and regulatory non-compliance.

Our tank calibration service involves determining the exact volume of a tank corresponding to various fill levels. We ensure that measurements are precise, enabling accurate monitoring and management of stored materials. We perform calibration using several methods, including liquid fill, dry calibration, or the use of advanced technologies like laser scanning and 3D modeling.



ANNULAR PLATE ULTRASONIC TANK SCAN

Fantek Private Limited can offer you Short Range Ultrasound (SRUT) inspection of your outer tank bottom annular ring plates providing a testing method that is sensitive to top and underside deterioration. We can access critical locations on the tank bottom annular plates while the tank is in service.

ULTRASONIC TESTING

Fantek Private Limited provides ultrasonic shear wave inspection for welds inspection as well as Ultrasonic Longitudinal Wave Inspection to perform thickness measurement and corrosion scanning/mapping on the plant piping and pressure vessels as per the API 510 and API 570 etc.

REMOTE VIDEOSCOPY INSPECTION

Fantek Private Limited provides Remote Videoscopy Inspection services for visual inspection of limited access areas such as heat exchanges, pressure vessels and piping.

MAGNETIC PARTICLE TESTING

Fantek Private Limited offers Magnetic Particle Testing services to detect surface and sub-surface imperfections in the welds and heat-affected zones of piping and process equipment. We also provide Magnetic Particle Testing on process equipment during plant shutdown to detect service cracks on the internal surface of vessels.

POSITIVE MATERIAL IDENTIFICATION

Fantek Private Limited provides Positive Material Identification (PMI) services to construction projects to identify or sort the different types of material. With PMI, the composition of materials in alloys can be accurately determined. It is particularly useful for high quality materials such as stainless steel and high alloy metals. While engineers push the boundaries of material capacity to the limit in their design, assurance that the proper material is used becomes of utmost importance.

We offer PMI with the XRF technology and OES for lighter elements like carbon.

PENETRANT TESTING

We offer Penetrant Testing to detect surface and sub-surface imperfections in the welds and heat-affected zones of piping and process equipment.

HARDNESS TESTING

At Fantek, our Hardness testing determines the strength of various materials, measuring their resistance to scratching, deformation, or cutting. Our test involves assessing the depth of an indent or incision made by a precisely shaped indenter applied to the material with a specific force for a set time. Suitable materials for hardness testing include structural steel, castings, forgings, welds, weld overlays, piping, machined parts, and pressure vessels.

We use digital hardness testers, which do not impair the future usefulness of the test piece and are ideal when a high degree of surface quality is essential.

COATING INSPECTION

Our inspectors are equipped with all necessary field instrumentation to conduct thorough surveillance. They prepare comprehensive documentation detailing job quality and progress. This close oversight enables the identification of potential problems and the recommendation of solutions before the work reaches a stage where costly rework would be required.

Our painting inspectors monitor every stage, including pre-surface preparation, weather conditions, surface preparation, confirmation of proper product applicability, product mixing, product application, wet/dry film thickness, recoat times, cure evaluations, product adhesion, and coating discontinuities.

VISUAL INSPECTION

Our Visual Inspection (VI) is the most commonly employed non-destructive testing method and is usually the first step in the examination process. Nearly any specimen can undergo visual examination to assess its fabrication accuracy, welding quality, surface defects, corrosion pits, overall condition, degradation, blockages, and presence of foreign materials.

We utilize a combination of human senses, including vision, hearing, touch, and smell, to inspect equipment and structures. We have the expertise, experience, and knowledge of failure mechanisms necessary to conduct effective visual inspections.

THIRD PARTY INSPECTION

Hidden defects in your assets such as discontinuities and corrosion pose significant challenges for your plant. These discontinuities can lead to structural failure, compromising the integrity of industrial assets or causing loss of containment. They could be costly, resulting in expensive repairs, production downtime, contaminated products, environmental damage, and potential risks to personnel.

For this reason, we offer reliable and accurate Non-Destructive Testing (NDT) methods to identify hidden defects and corrosion.

Please contact us to discuss your third-party inspection requirements or to arrange an inspection.

INDUSTRIAL SERVICES

LIFTING EQUIPMENT & GEARS

LIFTING EQUIPMENT & GEARS:

Inspection of lifting accessories and cranes is vital for ensuring the safety and reliability of lifting operations in your industrial settings. Hidden defects and wear in these components can lead to significant issues for plant operators, including equipment failure, costly repairs, production delays, and severe safety hazards for personnel.

Fantek Private Limited offers regular inspection of lifting accessories i.e. shackles, lifting belts, slings, chain block, eye bolts etc. and cranes helps to identify potential problems such as structural weaknesses, mechanical wear, and compliance with safety standards. Our inspection process involves thorough examination and testing of components like hooks, slings, chains, and crane structures to ensure they are in optimal working condition.

Due to critical nature of lifting operations, our company provide professionals for performing lifting equipment & accessories inspection to detect hidden defects and ensure the safe operation of lifting equipment.

FIRE PROTECTION

FIRE SAFETY AUDITS:

Our Fire Safety Audit is a systematic assessment of your building or facility to evaluate fire safety measures and preparedness. Our primary objective is to identify potential fire hazards, assess the effectiveness of existing fire protection systems and procedures, and recommend improvements to enhance fire safety.Our service includes the following:

Documentation Review:

Fire Safety Plans: Reviewing existing fire safety plans, evacuation procedures, and emergency response protocols.

Building Plans: Examining building layouts, floor plans, and fire protection system drawings.

Physical Inspection:

Fire Hazards: Identifying potential fire hazards such as flammable materials, storage practices, and ignition sources.
Fire Protection Systems: Inspecting fire detection systems (smoke detectors, heat detectors), fire alarm systems, sprinkler systems, fire extinguishers, and emergency lighting.
Escape Routes: Assessing the accessibility, clarity, and adequacy of escape routes, exits, stairways, and evacuation signage.

FIRE PROTECTION

Testing and Maintenance:

Operational Checks: Testing fire alarm systems, sprinklers, extinguishers, and emergency lighting to ensure they function correctly.
Maintenance Records: Reviewing maintenance logs and records to verify that fire safety equipment is regularly inspected, serviced, and maintained.

Staff Training and Awareness:

Training Programs: Evaluating the effectiveness of fire safety training for employees, including fire drills and evacuation exercises.
Awareness Programs: Assessing communication of fire safety information, emergency contact procedures, and reporting protocols.

Emergency Preparedness:

Response Procedures: Reviewing procedures for notifying emergency services, coordinating evacuation, and managing fire incidents.
Mock Drills: Observing or conducting mock fire drills to assess response times, effectiveness of evacuation procedures, and staff readiness.

Compliance Assessment:

Regulatory Requirements: Ensuring compliance with local fire safety regulations, codes, and standards applicable to the facility.

Report and Recommendations:

Findings: Documenting audit findings, including identified deficiencies, areas of non-compliance, and recommendations for corrective actions.
Prioritization: Prioritizing recommendations based on risk assessment and urgency of implementation.
Improvement Plan: Developing an action plan with timelines for addressing deficiencies and improving overall fire safety measures.

HAZARDOUS AREA CLASSIFICATION STUDIES (HACS):

At Fantek Private Limited, we offer Hazardous Area Classification Study (HACS) as a systematic assessment of your facility or industrial environment to identify and classify areas where flammable gases, vapors, liquids, combustible dusts, or fibers may pose a risk of ignition and explosion. Our study helps you ensuring safety and compliance with regulations in hazardous environments. Our HACS services include:

Identification of Material Properties:

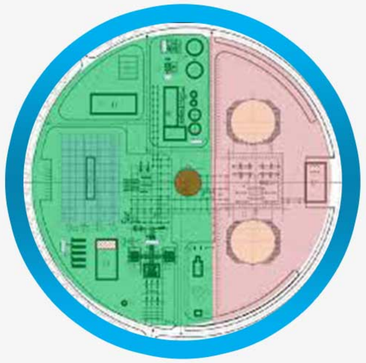
Flammable Substances: Identifying the types and properties of flammable gases, vapors, liquids, combustible dusts, or fibers present or likely to be present in the environment.
Ignition Properties: Assessing the potential for ignition sources based on the ignition temperature, flash point, and explosive limits of flammable substances.

Area Classification(s):

Zoning: Dividing the facility into zones based on the frequency and duration of the presence of flammable substances:
Zone 0, Zone 1, and Zone 2: For gases, vapors, or mists.
Zone 20, Zone 21, and Zone 22: For combustible dusts.
Boundary Definition: Establishing the boundaries of hazardous zones to indicate where precautions are necessary to prevent ignition sources.

Risk Assessment:

Probability and Consequence: Evaluating the likelihood of a flammable atmosphere occurring and the potential consequences of an explosion.
Safety Measures: Recommending appropriate measures to minimize the risk, such as ventilation, containment, and use of explosion-proof equipment.



Documentation and Reporting:

Classification Drawings: Creating drawings and documents that illustrate the zoned areas and provide guidance for safe practices and equipment selection.
Hazardous Area Dossier: Compiling a comprehensive report that includes findings, classifications, and recommendations for compliance and safety improvements.

Review and Verification:

Periodic Review: Updating the Hazardous Area Classification Study periodically or when there are changes in the facility layout, processes, or hazardous substances.
Audit and Inspection: Conducting audits and inspections to verify compliance with the study recommendations and regulatory requirements.

PORTABLE FIRE EXTINGUISHER INSPECTION:

Our experts can conduct the inspection of Portable fire extinguisher as per guidelines set forth in NFPA standard for your fire safety management. Our inspection is aimed at ensuring that fire extinguishers are in proper working condition and ready for immediate use in case of a fire emergency.

FIRE DETECTION, ALARM & FIGHTING SYSTEM INSPECTION:

Our inspection of a fire detection & fighting system is a critical process aimed at verifying the functionality, reliability, and compliance of your system with NFPA standards. It ensures that the system is capable of detecting fires promptly, alert occupants to evacuate safely & work smoothly to protect loss of your building, assets & lives. Our studies also include the voltage drop calculations to verify each actuation device will function properly in case of any mishap.

FANTEK DIGITAL

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