



www.hertzttc.com

Destructive Testing
Non-Destructive Testing
NDT Training



HERTZ TESTING AND TRAINING CENTRE

Creating a culture of Excellence

WHO WE ARE



Chetan Shah
Director

We take this opportunity to introduce **HERTZ TESTING & TRAINING CENTRE** as a newly developed and equipped material testing lab located at Vatva , Ahmedabad. Hertz Testing and Training Centre accredited to NABL (ISO : 17025) and approved by IBR is a Material Testing and Training Hub providing complete material testing and training solutions under one roof. The company is established by a team of highly qualified and experienced engineering experts having sound industrial experience of Destructive Testing, Non-Destructive and NDT Training in industries like casting, Forging, Fabrication, Piping, Heavy Engineering, chemical, fertilizer, Power Plant and Refineries. The company is fully equipped with Ultra-Modern, Digital Computer Controlled Testing Equipment, Qualified and Experienced Engineers and World Class Training facilities.



DESTRUCTIVE TESTING



MECHANICAL TESTING

We offer a comprehensive range of Mechanical Testing. Our Mechanical Testing facility consists of servo computerized Universal Testing Machine of 1000 KN with front open crossheads & hydraulic grips, fully Computer Controlled Universal Testing Machine of 100 KN specially for accurate result of Thin Sections, Digital Motorized Combined Rockwell cum Superficial Hardness Testing Machine, Vickers cum Brinell Hardness Testing Machine and Digital Combined ASTM and ISO Charpy Impact Testing Machine of 300 J capacity.

We provide services for various tests like Tensile Testing, Yield Strength, % Elongation, % Area Reduction, Bend & Re-Bend Test, Flare Test, Flange Test, Flattening Test, Fracture Test, Shear Test, Compression Test, Proof Load Test, Wire Rope Test, Expansion Test, Cupping Test, Welder Qualification Test, Rockwell Hardness Test, Brinell Hardness Test, Vickers Hardness Test and Impact Test. We are also having In-House Cutting and Machining Facility. Digital Computer Controlled Equipment and Qualified and Experienced engineers ensure reliable and accurate results.



CHEMICAL ANALYSIS



We provide services for Wet Chemical Analysis and Chemical Analysis by Optical Emission Spectrometer. We have installed Bruker make CCD based Optical Emission Spectrometer which gives faster, highly accurate and reliable results. We are having a facility of chemical analysis of Iron, Aluminium, Copper, Nickel and Titanium based alloys. We have also XRF Alloy Analyser which is very fast and highly accurate. The equipment can be connected to computer and online report can be prepared.

METALLURGICAL TESTING

We have installed Olympus GX-51 Metallurgical Microscope for Micro Examination. The GX-51 inverted microscope provides stability to support excellent image clarity and superb resolution with high magnification. UIS2 optics delivers bright, sharp, high-resolution images suitable for all observation methods: bright field, dark field, differential interference contrast, polarization and fluorescence. We provide services for Micro Structure Examination, Macro Examination, Grain Size Measurement, Inclusion Rating, Nodularity, Phase Analysis, Weld Examination, Case Depth & Decarburization Measurement and In-situ Metallography



CORROSION TESTING



We offer services for Corrosion Testing. We have installed PID Controlled Muffle Furnace and Hot Plates for corrosion testing. The system can be connected to computer and online boiling and heat treatment chart can be generated. We provide services for Inter Granular Corrosion (IGC) Test as per ASTM A 262 Practice – A / B / C & E, Detecting Susceptibility to intergranular attack in Ferritic Stainless Steel as per ASTM A 763 Practice W / X / Y & Z, Weld Decay Test, Mercurous Nitrate Test, Detecting Susceptibility to intergranular corrosion in Wrought, Nickel – Rich, Chromium – Bearing Alloys as per ASTM G 28, Pitting and Crevice Corrosion resistance of Stainless Steel and Alloys as per ASTM G 48 and Evaluating Stress Corrosion Cracking Resistance of Metals and Alloys as per ASTM G 36.

NON-DESTRUCTIVE TESTING

NON-DESTRUCTIVE TESTING (NDT) is a wide group of analysis techniques used in science and industry to evaluate the properties of a material, component or system without causing damage. Our specialist NDT services are backed up by years of experience from highly qualified personnel and use of cutting-edge technology. These specialist techniques can assist you in meeting the inspection challenges that arise with complex components or structures and increase the detection of defects. We serve a variety of industry sectors including Casting, Forging, Fabrication, Piping, Power Plant, Fertilizer and Refineries.



ULTRASONIC TESTING

Ultrasonic Testing is a very useful and versatile NDT method used to locate surface and internal defects in metals and other material. It is also used to measure thickness of the material.

We offer onsite flaw detection services for testing of Casting, Forging, Welding, Round Bar, Plates and Piping with inbuilt DAC, AVG, DGS, API 5UE and AWS D1.1 Software with recording facility. We are equipped with advance and computer controlled equipment.

RADIOGRAPHY TESTING

We, AERB (Atomic energy Regulatory Board) approved testing unit, offers a full range of industrial radiographic services and techniques. Our highly skilled, experienced and BARC qualified radiographer have the abilities to handle a variety of assignments onsite or offsite. We are equipped with imported radiation sources, AERB approved enclosure room, fully utilized darkroom and high quality safety equipment.

We provide services for industries like Casting, Forging, Valve, fabrication, Piping and Boiler manufacturer.



MAGNETIC PARTICLE TESTING

Magnetic Particle Testing is a NDT technique for detecting surface and subsurface discontinuity in ferromagnetic materials such as iron, nickel, cobalt and some of their alloys.

We offer on-site magnetic particle inspection services using yoke type, prod type and coil type magnetizing equipment; dry powder, wet magnetic particles & wet fluorescent magnetic particle technique.

LIQUID PENETRANT TESTING

Liquid Penetrant Testing (LPT) also called Dye Penetrant Testing (DP) is a widely applied and low-cost inspection method used to locate surface defects in all non-porous material. LPT is used to detect casting, forging and welding surface defects such as hairline cracks, surface porosity, leaks in new products, and fatigue cracks on in-service components.

We offer on-site Liquid Penetrant Testing services using contrast or fluorescent penetrant for highly sensitive inspection.



NON-DESTRUCTIVE TESTING



EDDY CURRENT TESTING

Eddy current testing is widely used in the Aerospace, Automobile, Power Generation and in other manufacturing and service environments that require inspection of thin metal for potential safety-related or quality-related problems. In addition to crack detection in metal sheets and tubing, eddy current can be used for certain metal thickness measurements such as identifying corrosion under aircraft skin, to measure conductivity and monitor the effects of heat treatment, and to determine the thickness of non-conductive coatings over conductive substrates.

LEAK TESTING

A Helium Leak Detector, also known as a Mass Spectrometer Leak Detector (MSLD), is used to locate and measure the size of leaks into or out of a system or containing device. The tracer gas, helium, is introduced to a test part that is connected to the leak detector. The helium leaking through the test part enters through the system and this partial pressure is measured and the results are displayed on a meter.

We offer services for Helium Leak Testing and Vacuum Box Testing.



NDT & WELDING - TRAINING & CERTIFICATION



Hertz Testing and Training Centre is a leading NDT Training Provider in Ahmedabad. We provide world class NDT Training, Examination and Certification in accordance with American Standard ASNT. Our aim is to provide high quality training to the professionals to make them more competent and confident in delivering their responsibilities in the level of quality expected from the industry. We have excellent training room equipped with audio, visual power point presentation and latest NDT Instruments for Practical Training. Our faculty is highly qualified and experienced. We provide NDT Level – I and Level – II Training in Ultrasonic Testing, Radiography Training, Magnetic Particle Testing, Liquid Penetrant Testing, Eddy Current Testing, Visual Testing and Leak Testing.

We also provide training for shop floor welder and engineers about welding. We provide training as per customer requirement as per their need. Welding training includes knowledge about basic welding processes, equipment, Destructive and Non-Destructive Testing of Welding, Welding Symbols and Practical Training as per ASME and API. We also provide short duration training on WPS, PQR and WPQ as per ASME Code Section – IX. We also provide class room training and shop floor training as per customer's need.

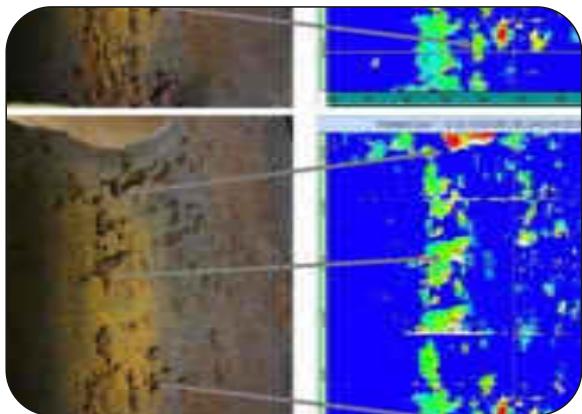


ADVANCE NON-DESTRUCTIVE TESTING



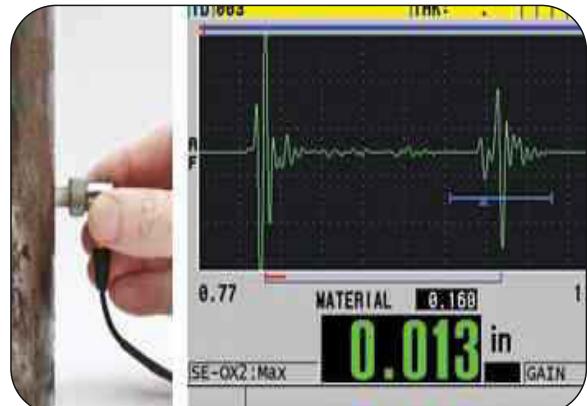
ECT/RFT/MFL/IRIS - Eddy Current testing of tubes is an effective way of assessing the condition and lifespan of tubes, particularly in the power generation, petrochemical, chemical, fertilizer and air conditioning industries. Eddy current testing of tubes is highly specialised, requiring expertise and specialist equipment. Our non-destructive testing inspectors are ASNT Level II or III qualified in eddy current testing, and have years of experience in performing this technique on tubing. We perform Eddy Current Testing (ET) of austenitic stainless steel tubes, Remote Field Testing (RFT) for carbon steel tubes, Magnetic Flux Leakage Testing (MFL) and Internal Rotary Inspection Testing (IRIS).

PAUT / TOFD - Phased Array Ultrasonic Technology with its associated flaw evaluation software can provide flaw data accurately and precisely for the fracture mechanics based acceptance standard. Time of Flight Diffraction (TOFD) is one of the most reliable non-destructive testing methods in testing welds for both pre-service and in-service inspection. Our inspectors are Level II / Level III qualified and highly experienced in using this testing method. Their expertise can help you to ensure that your welded structures or items are compliant with industry codes, standards or customer specifications.



CORROSION MAPPING provides reliable information about the remaining wall and ID geometries of equipment and piping. All vessels and piping systems in the refining and petrochemical industry are subject to material degradation and corrosion scanning can help to detect where problem areas exist or where they may possibly exist in the future. Corrosion mapping provides digital images, which can be regenerated or archived for future examination. Corrosion mapping scans can be remapped to establish flaw extension over time, allowing Fitness for Service assessments. We provide services for corrosion mapping.

OXIDE SCALE MEASUREMENT - The ID oxide scale is produced by oxidation in the Boiler Tubes. The scale build up occurs when the tubes have experienced high temperatures for extended periods of time. The formation of ID scale reduces heat transfer and results in a further increase of tube metal temperature. The increase in ID scale and the associated tube metal temperature promotes creep in the tube metal. Formation of creep results in a loss of strength at high temperature and therefore a loss in remaining life. The final outcome of excessive scale is a long term overheats failure. Our advance Ultrasonic Testing equipment and highly experienced engineer ensures accurate and reliable Internal Oxide Scale Thickness measurements.



REMOTE VISUAL INSPECTION is used to visually inspect plant components for surface defects, general condition, degradation, blockages & foreign materials. It can be used as standalone inspection or as a complement to other NDE techniques, such as Eddy Current, Ultrasonic or X-ray, in order to qualify unclear signals or pinpoint where a more thorough inspection is needed. We provide services for Video Scope Examination with advance equipment.

VALUE ADDED SERVICES



FAILURE ANALYSIS

Failure Analysis is the process of collecting and analysing data to determine the cause of a failure, often with the goal of determining corrective actions or liability. A Failure Analysis results answer questions like – How did the component or equipment fail? What are the reasons of failure? And what precaution can be taken to stop it from failing? A systematic approach is required to investigate causes. Finding cause of problem is most important step of finding solution. We offer failure analysis for many industries like Chemical, Petrochemical, Fertilizer, Refineries, Power Plant, Fabrication and Engineering.

REMAINING LIFE ASSESSMENT

In recent years, Petroleum Industries, power generation industries and various other plants throughout the world are facing a common issue- aging of their equipment. Questions bearing in user's minds are what is the equipment's condition ? The answer is significant not only for safety concerns but cost reduction and reduction of downtime also. Due to continuous use under high temperature, pressure and critical environmental conditions, material properties are degraded. Damage due to creep, fatigue and corrosion are irreversible and essential to predict remaining life. We are IBR approved RLA organization and we undertake RLA for boilers and engineering industries.



NDT LEVEL – III CONSULTANCY

We provide NDT Level – III Consultancy for preparation and approval of NDT written practices as per ASNT recommended practice SNT-TC-1A or CP 189, preparation and approval of NDT procedures for various inspection methods as per applicable National or International Code and Standard, technical assistance in purchasing and installation of NDT equipment or system at client's works and operator training to run the equipment or system, periodic evaluation and recertification of NDT Level – I and Level – II certificate as per guidelines of ASNT recommended practice SNT-TC-1A or CP 189.

THIRD PARTY INSPECTION

Industrial Third Party Inspection refers to independent inspection services that are provided by inspection agencies either hired by a buyer or seller. We have a team of highly qualified and experienced engineers. We provide services for pre-shipment inspection, witness important tests and inspections such as technical assessment for shop approval, raw material inspection, in-process stage witness, NDE test, welding process and heat-treatment process witness, mechanical – chemical – metallurgical tests witness, hydro static and dimensional measurement witness as per National or International Code, Standard or customer specification. We also provide services for NDT audits.



Some of our Valuable Clients :



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LEADING TOMORROW TOGETHER

ALSTOM



Reliance
Industries Limited

HUNTSMAN
Enriching lives through innovation



APOLLO

SANDVIK



ISGEC
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METALS & TUBES LTD.



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CGPL
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