THANKI ENGINEERING SOLUTIONS

Delivering Excellence in NDT

TF – 28, Suner Complex, Harinagar Crossing, Gotri Road, Vadodara - 390 007, tesndt@gmail.com, 9428173351

Introduction : -

Thanki Engineering Solutions owned and managed by Experienced Professionals in the field of world-class NDT products and solutions. We believe in providing the best Products and Reliable Service to the Customers. We provide a range of technology products and value-added services towards economical engineering solutions, catering to most of the industry segments. We build good repro with beloved Customers by providing the best Products, reliable Service and Economical solutions.

We would like to enhance the customer base all over the Country. We committed to maintain a competitive edge, by constantly adding Innovative products to our portfolio and serve the Non Destructive Testing (NDT) Community in the State with the best Engineering Solutions.

Thanki Engineering Solutions – A Single Source to cater Industrial requirements of all Types of NDT (Non Destructive Testing).

1. Ultrasonic Testing & Ultrasonic Thickness Gauging.
2. Advanced UT With Phased Array Ultrasonic Testing (PAUT) & Time of Flight Diffraction (TOFD)
3. Oxide Scale Measurement on Boiler Tubes.
4. Magnetic Particle Testing.
5. Dye Penetrate Testing.
6. Hardness Testing.
7. Visual Testing - Remote Visual Inspection (RVI)
8. Eddy Current Testing & Pulse Eddy Current Testing.
9. Industrial Radiography Testing - Film Interpretation.
10. Positive Material Identification Testing (PMI).
11. Vacuum Box Leak Testing.

We have following Verticals in our feather.

1. **NDT Sales** - We supply All NDT Equipments , Calibration blocks , Accessories & Consumables.
2. **NDT Inspection Services** - We Provide Manpower for NDT onsite with Equipment & Accessories.
3. **Calibration** of all NDT Equipments as per National / International Standards.
4. **Training** - Level I & II , Certification & Renewal in all NDT methods as per SNT TC 1 A.
5. **Consultancy**, E-Guidance & AMC of all activity in eLora as per AERB.
6. **NDT Level III Services** - Recertification , NDE Written Practice as per SNT TC 1 A & Procedure Preparation as per ASME/EN Standards
7. Component Level Repairing & Servicing of NDT Equipments.
8. Customization of NDT Techniques for special jobs i.e. Bond Testing , Oxide Scale ,
9. Skilled Manpower supply for Third Party Inspection , Witness , Projects & Shutdown jobs.
10. Product inspection from Raw Material to Final Stage.

Warm Regards,

Viral Thanki (Proprietor)
URL - www.thankiengineering.com

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WHAT IS NDT?

Nondestructive Testing (NDT) plays an important role in assuring that structural and mechanical components perform their function in a safe, reliable, and cost-effective manner. NDT technicians perform the necessary tests to locate the indicators and discontinuities that may cause failures or shut downs in such systems. These tests are performed in a manner that does not affect the future usefulness of the object or material – hence, the name "nondestructive." NDT allows for careful and thorough materials evaluation without the need for deconstruction or damage. NDT is typically used at various points in a part's life cycle. NDT can be used prior to the use of a component for the sake of quality control. NDT is also employed while components are in use to detect service related conditions caused by wear, fatigue, corrosion, stress, or other factors which affect reliability.

NDT Technologies Include:

Visual and Optical Testing (VT) : -

Visual Examination can be an effective way to recognize surface imperfections that could adversely affect a part or component. Visual Examiners use knowledge of how a part is manufactured, the function of the human eye, lighting requirements, and precise measuring tools to evaluate materials. Computer controlled camera systems and optical aids such as borescopes may also be used to recognize and measure features of a component.

Radiography (RT) : -

Radiographic Examination involves using radioactive isotopes (gamma rays) or X-rays on materials to peer qualitatively for indications the same way a doctor looks for fractures or other conditions within the body. Radiation is directed through a part and projected onto film or a digital detection device leaving an image which can be examined by the qualified Radiographer.

Ultrasonic Testing (UT) : -

Ultrasonic Examination uses high-frequency sound waves which are transmitted into a material to detect discontinuities or locate changes in material characteristics. Sound is introduced into the object being examined and reflections from internal imperfections, areas of acoustic impedance, or varying geometrical surfaces are returned to a receiver.

Magnetic Particle Testing (MT) : -

Magnetic Particle Examination is accomplished by inducing a magnetic field into a ferromagnetic material and applying iron particles to the surface of the item being examined. Surface and near-surface discontinuities affect the flow of the magnetic field within the part causing the applied particles to gather at locations of flux leakage, thus producing a visible indication of the irregularity on the surface of the material.

Penetrant Testing (PT) : -

Penetrant Examination is performed with a dye solution. Once applied to the surface, the dye will effectively penetrate any surface-breaking cavity. Excess solution is removed from the object. A developer is then applied to draw out any penetrant that remains unseen. With fluorescent dyes, ultraviolet light is used to make the "bleed-out" fluoresce brightly, allowing imperfections to be readily seen. With visible dyes, a color contrast between the penetrant and developer makes the "bleed-out" easy to see.

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TES Training Centre

We have **NDT Training Centre** , Our training programmes are charted as per the guidelines of ASNT-SNT-TC-1A - 2016 , Our classroom is spacious enough to accommodate more than 20 participants.

The courses are carefully scheduled so as to meet the demanding needs of our students , training programmes also include video presentations of various NDT methods and their specifics for the candidates to visually inherit the concepts & procedures involved in Non-destructive Examination.

Our courses are designed to stress on practical application and relate theory to the work environment. Comprehensive practical training on one-on-one basis has made us an outstanding training center among other NDT trainers.

List of Recommended initial Training and Experience Levels as per SNT TC 1A

SR NO	Examination Method	NDT Level	Training Hours	Minimum Hours in Method or Technique	Experience Total Hours in NDT
1	Penetrant Testing	I	4	70	130
2		II	8	140	270
3	Magnetic Particle Testing	I	12	70	130
4		II	8	210	400
5	Radiography Testing	I	40	210	400
6		II	40	630	1200
7	Visual Testing	I	8	70	130
8		II	16	140	270
9	Ultrasonic Testing	I	40	210	400
10		II	40	630	1200
11	Time Of Flight Diffraction	II	40	160	N/A
12	Phased Array	II	80	160	N/A
13	Limited Edition for Film Interpretation (For Non Radiographer)		40	220	N/A
14	Limited Edition for Film Interpretation (For RT Level I)		24	220	N/A
15	Limited Edition for Digital Thickness Measurement		8	40	N/A
16	Limited Edition for Digital A Scan Thickness Measurement		24	175	N/A

1. A person may be qualified directly to NDT Level II with no time as a certified NDT Level I, providing the recommended training and experience consists of the sum of the hours recommended for NDT Level I and Level II.
2. Listed training hours may be adjusted as described in the employer's written practice depending on the candidate's actual education level, e.g. grammar school, college graduate in engineering, etc.