



Kalkars NDT Services

Non-Destructive Testing ASNT Level I & II

Kalkars NDT Services

A Venture of Jovee Infotech

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Non-destructive Testing (NDT)

- Assuring that structural components and systems perform their function in a reliable and cost effective fashion
- NDT technicians and engineers define and implement tests that locate and characterize material conditions and flaws
- Does not affect the future usefulness of the object or material

When are NDT Methods Used?

There are NDT application at almost any stage in the production or life cycle of a component

- To assist in product development
- To screen or sort incoming materials
- To monitor, improve or control manufacturing processes
- To verify proper processing such as heat treating
- To verify proper assembly
- To inspect for in-service damage

- Ultrasonic Testing (UT)
- Penetrant Testing (PT)
- Magnetic Particle Testing (MT)
- Radiography Testing (RT)
- Visual Testing (VT)

Ultrasonic Testing (UT)

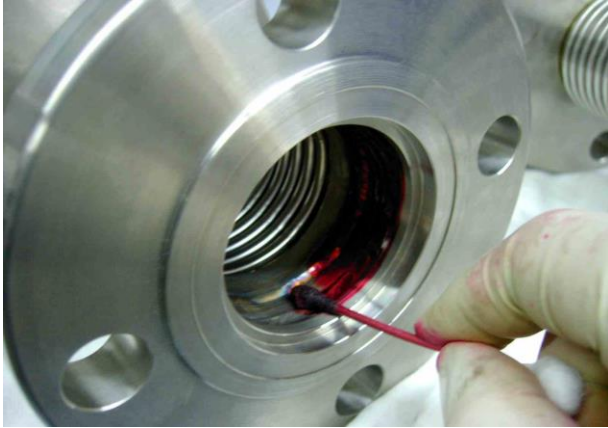


- High-frequency sound waves are sent out at a material to find material changes
- A pulser produces an electrical pulse that causes a piezoelectric transducer to send out a sound wave

- Reflected waves are transformed back into electrical signals by the transducer and analyzed
- Its main applications are in thickness gauging and flaw detection



Penetrant Testing (UT)



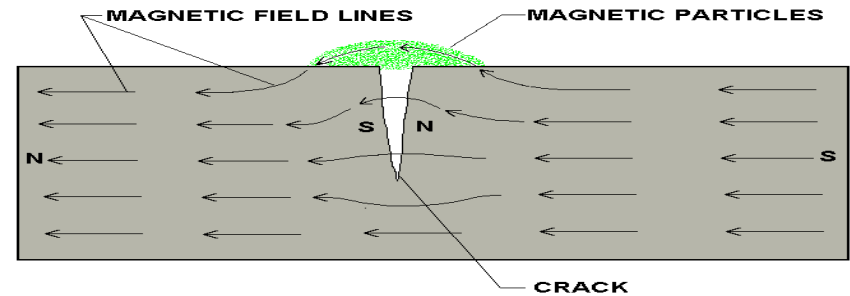
- A liquid with high surface wetting characteristics is applied to the surface of the part and allowed time to seep into surface breaking defects.
- The excess liquid is removed from the surface of the part.

- A developer (powder) is applied to pull the trapped penetrant out the defect and spread it on the surface where it can be seen.
- Visual inspection is the final step in the process. The penetrant used is often loaded with a fluorescent dye and the inspection is done under UV light to increase test sensitivity.

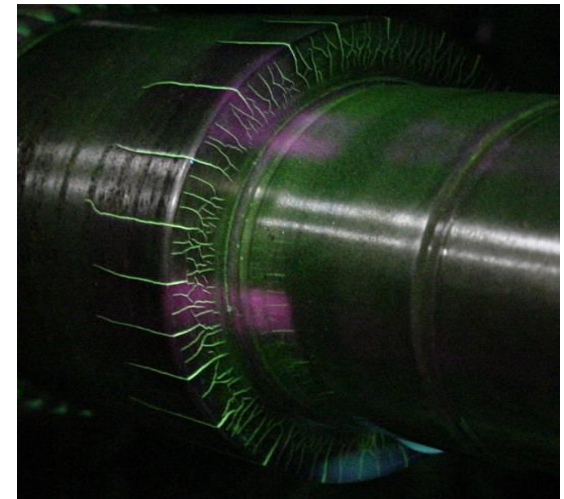


Magnetic Particle Testing

The part is magnetized. Finely milled iron particles coated with a dye pigment are then applied to the specimen.

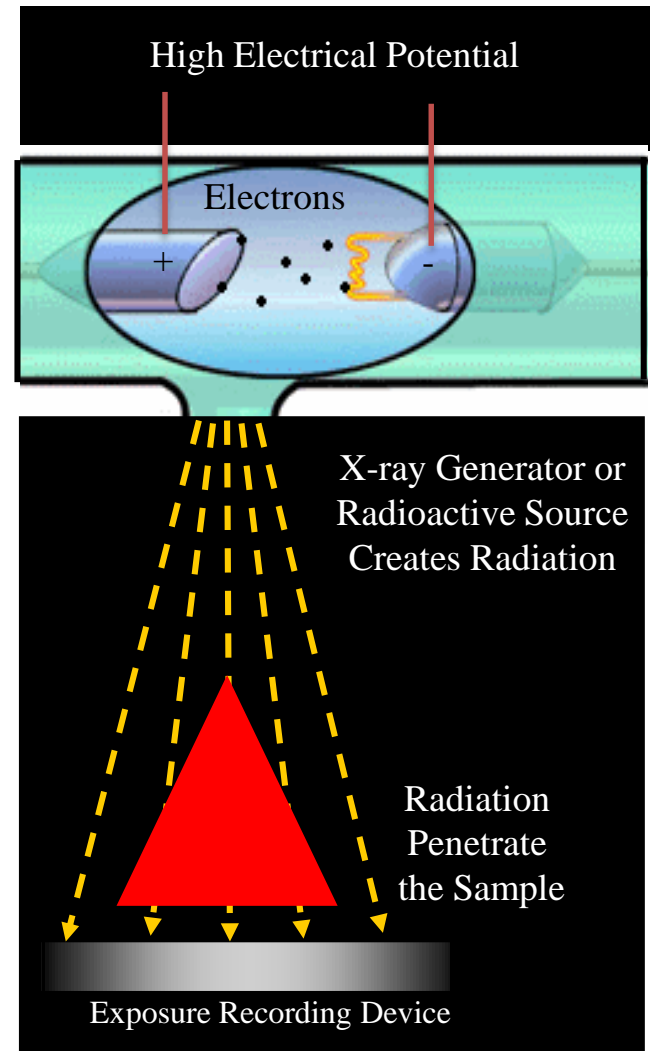
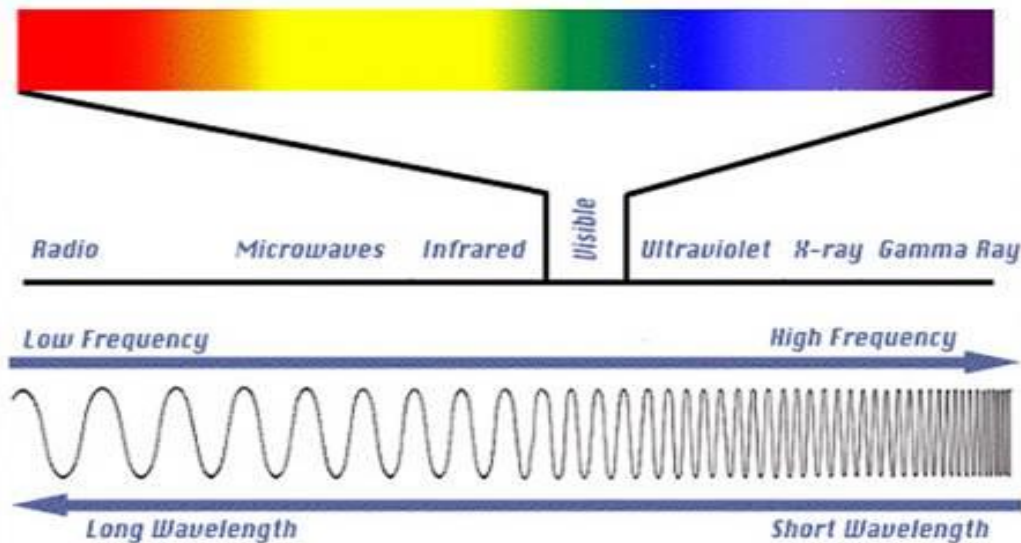


These particles are attracted to magnetic flux leakage fields and will cluster to form an indication directly over the discontinuity. This indication can be visually detected under proper lighting conditions.



Radiography Testing (RT)

The radiation used in radiography testing is a higher energy (shorter wavelength) version of the electromagnetic waves that we see as visible light. The radiation can come from an X-ray generator or a radioactive source.





- Most basic and common inspection method.
- Tools include fiberscopes, borescopes, magnifying glasses and mirrors.

- Portable video inspection unit with zoom allows inspection of large tanks and vessels, railroad tank cars, sewer lines.



- Petrochemical Industry
- Piping Industry
- Refineries
- Amusement Park
- Medical Industry
- Pulp and Paper Industry
- Nuclear
- Aerospace Industry
- Aviation industry
- Automotive Industry
- Power Plants
- Rocket Industry
- Construction
- Manufacturing
- Railways
- Submarines

Indian Companies

Need of NDT

- Reliance Industries Ltd.
- Larsen & Tubro Ltd.
- Reliance Petroleum Ltd.
- Aban Construction Ltd.
- Duncans Industries Limited
- Nagarjuna Fertilizers & Chemicals Ltd.
- Stewarts & Lloyds of India Ltd.
- Tube Products of India Ltd.
- Neyveli Lignite Corporation
- Spic Jel Engineering Construction
- Saipem UK Ltd.
- Indian Oil Corporation
- Pipava Shipyard Ltd.
- Nirma Ltd.
- Vijaya Tanks & Vessels Ltd.
- Grasim Industries Ltd.
- Tata Chemicals Ltd.
- And Many More

- Dubai
- Singapore
- Qatar
- South Africa
- Saudi Arabia
- Kuwait
- Australia
- United States of America (USA)
- Iraq
- Oman
- Philippines
- Canada
- China
- Bahrain
- Brunei
- Brazil
- Malaysia
- United Kingdom (UK)

- Kalkars NDT Services (KNS) is recognized institute in Madurai equipped with all latest NDT equipments and managed by experienced ASNT NDT Level III expert. Trainings are conducted by well experienced Level III and approved NDT Instructors.
- After completion of Training, examinations will be conducted & certificates will be issued to pass candidates. This NDT Level I & Level II certification is recognized and valid worldwide.
- After satisfactory training and certification KNS also helps to get the trainee jobs in NDT field with its associates. After getting worth hands on experience in NDT field KNS is helping candidates to get overseas opportunities.

- Every Calendar month a new batch is starting for NDT Level I & II courses.
- KNS conducts NDT Level I & II courses for its clients at Client's factories (In House) for minimum of 10 candidates all over Tamil Nadu.
- Radiography Practical Training conducted at Sites in Trichy. Both Gamma and X rays practical were shown.

- SSLC
- Higher
Secondary
- Any
Diploma
- Any Degree
- BE, B.Tech.

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