

SIGMA NDT is a company founded with the objective of advancing the science, technology and application of Non Destructive Testing and to impart the specialized skills required by the professionals engaged in NDT, Engineering Inspection and Quality Control.

SIGMA NDT is promoted by the NDT professionals who have been very active in the development of NDT technology and applications and also in the training of NDT professionals in India



SIGMA NDT offers a variety of courses in NDT, These courses are designed to suit the training requirements of both individuals as well as organizations.

Courses in NDT currently offered by SIGMA NDT are formulated based on the requirements of the personnel qualification and certification in Non Destructive Testing 'Recommended Practice Number SNT- TC-1A', 2006 of the American Society for Non Destructive Testing (ASNT).

For this reason, the qualifications awarded to the successful

ULTRASONIC TESTING (UT)

Ultrasonic Testing uses transmission of high frequency sound waves into a material to detect imperfections within the material or changes in material properties. The most commonly used ultrasonic testing method is Pulse Echo, wherein sound is introduced into the test object and reflections are returned to a receiver from internal imperfections and geometrical surfaces of the part.

The training includes:

Theory on fundamentals of ultrasonic testing like types of waves, factors effecting ultrasound, equipment, Beam characteristics and Practical on hand training on



RADIOGRAPHIC TESTING (RT)

Radiographic Testing involves the use of penetrating X or Gamma radiation to examine parts and products for imperfections. An X - ray machine or radioactive isotope is used as a source of radiation. Radiation is directed through a part onto the film. When the film is developed, a shadowgraph is obtained that shows the internal soundness of the part.

The training includes:

Theory on types of Radiation, Sources, Dangers, Films, Exposure time calculation, Developing, Interpretation of radiographs.

MAGNETIC PARTICLE TESTING (MT)

Magnetic particle testing is done by inducing a magnetic field in a ferromagnetic material and dusting the surface with iron particles. Surface imperfections will distort the magnetic field and concentrate the iron particles near the imperfections, thus indicating their presence.

The Training includes:

Theory on types Magnetisation, Poles, Current, Demagnetisation, inks, Field indicators and Practical.



PENETRANT TESTING (PT)

Liquid penetrant testing is probably the most widely used NDT method. The test object or material is coated with a visible or fluorescent dye solution. The excess dye is removed from the surface, and then a developer is applied. The developer acts like a blotter. It draws penetrant out of the imperfections which are open to the surface. With visible dyes, the vivid color contrast between the penetrant and the developer makes the bleed easy to see. An ultraviolet lamp is used to make the bleed-out fluoresce brightly, thus allowing the imperfection to be seen clearly.

The training includes:

Theory on different types of penetrant, applications, Dwell time, Removal Process, Developer, minimum requirements as per code and practical demonstration.

