Top 5 industries where NDT is used

NDT stands for **Non-Destructive Testing**. It refers to an array of inspection methods that allow inspectors to evaluate and collect data about a material, system, or component without permanently altering it.

NDT may also be called:

- NDE (Non-Destructive Examination or Evaluation)
- NDI (Non-Destructive Inspection)

The six most frequently used NDT methods are eddy-current, magnetic-particle, liquid penetrant, radiographic, ultrasonic, and visual testing. With technological developments in imaging and digital regulator, several other techniques have been established that include Phased Array Ultrasonic Testing (PAUT), Time of Flight Diffraction (ToFD), Digital and Computed Radiography. Read about all these NDT methods here. (hyperlink to the blog Everything you need to know about NDT)

Why is NDT used?

Here are the top reasons NDT is used by so many companies throughout the world:

- **Savings:** The most obvious answer to this question is that NDT is more appealing than destructive testing because it allows the material or object being examined to survive the examination unharmed, thus saving money and resources.
- **Safety:** NDT is also appealing because almost all NDT techniques (except radiographic testing) are harmless to people.
- **Efficiency:** NDT methods allow for the thorough and relatively quick evaluation of assets, which can be crucial for ensuring continued safety and performance on a job site.
- **Accuracy:** NDT methods have been proven accurate and predictable, both qualities you

want when it comes to maintenance procedures meant to ensure the safety of personnel and the longevity of equipment.

Top 5 industries where NDT is used

The non-destructive Testing (NDT) market continues to prove that it is a technology that is well worth investing in for a wide variety of industries. Part of the reason for its growing popularity among technicians and engineers in these fields is that it saves companies millions of dollars in repair costs. Let's take a look at some of the other big industries where the **application of NDT** is evident.

Aerospace & Defense: Of course, the aerospace & defense industry is one of the most consistent users of NDT technologies including the use of ultrasonic testing equipment. This is because items such as airframe structures need to be able to be tested for strength and wear and tear as they are under great pressure when in use. The smallest breach in materials – which ultrasonic testing can reveal – can result in the loss of cargo, assets and human life.

Biomedical & Medical Devices: The **application of NDT** in biomedical & medical devices is very big. This is the one industry that laymen most associate with NDT such as ultrasounds, x-rays, etc. Obviously where the human body is involved technicians want to do as little harm as possible when diagnosing diseases.

Civil and Heavy Construction: As structures have gotten bigger and bigger so too has the need for certain materials to be able to withstand great stresses. NDT makes sure that the materials that go into constructing buildings, bridges, damns, etc., can withstand those stresses and that they last for generations.

Oil and Gas Industry: Ultrasonic technologies, as well as radiography, is used in this industry to inspect the internal structure of equipment in order to detect welds, cracks, voids and other types of material or structural defects.

Primary Metals & Mining: The products that are produced by this industry support countless other industries including our own. Thus, failure to properly gauge the strength of certain materials can have seismic reverberations.

Additionally, the **applications of NDT** is done in these industries:

- Power Generation
- Chemicals
- Mining
- Automotive
- Maritime

Benefits of NDT

Without NDT, you couldn't be sure your materials, products, and equipment will achieve their design requirements or their expected life. Undetected defects and flaws usually result in expensive repairs or replacements and can place your company's employees in unsafe conditions. Consider the loss of revenue due to an unplanned plant shutdown when equipment fails. Even more important, a catastrophic failure can have a devastating impact from which some companies never recover.

NDT primarily covers the following:

- Prevent accidents and reduce costs
- Improve product reliability
- Meet regulations and requirements
- Manage assets and resources

Conclusion:

Are you looking for a single platform that has all the information related to Non- destructive Testing? Your search ends here. One Stop NDT has everything related to Non-Destructive Testing in one place.

Backed by professionals with unprecedented experience & the presence of more than 20 years in the NDT Market, One Stop NDT gives you a chance to freely communicate and interact with experts.

Blog Source: [One Stop NDT]