

# GETTING TO GRIPS WITH NDT.

## WHAT IS NDT?

- A wide group of analysis techniques used in science and industry to evaluate the properties of a material, component or system without causing damage.
- Other terms commonly used to describe NDT are:
  - Non-destructive examination (NDE)
  - Non-destructive inspection (NDI)
  - Non-destructive evaluation (NDE)
- NDT does not permanently alter the material being inspected.
- Time and cost effective as any problems can be rectified before becoming a terminal issue.
- NDT is used as a safety monitor in many industries including ensuring the planes and trains we travel on.



## WHAT INDUSTRIES CAN NDT APPLY TO?

NDT is used in a variety of settings that covers a wide range of industrial activity.

- Automotive
- Aviation / Aerospace including Engines, Propellers, turbines, Outer Shell & Wheel Inspection.
- Power Plants
- Construction including Structures, Bridges
- Manufacturing
- Machine parts
- Castings and Forgings
- Industrial plants such as Nuclear, Petrochemical, Power, Refineries, Pulp and Paper, Fabrication shops, Mine processing.
- Pressure vessels
- Storage tanks
- Welds
- Boilers
- Heat exchangers
- Pipelines
- Leak Detection
- Rail
- Tubular NDT, for Tubing material
- Amusement park rides
- Submarines and other Naval warships
- Medical imaging applications

## WHAT TYPES OF NDT ARE AVAILABLE?

Common NDT methods include:

- Ultrasonic
- Magnetic-Particle
- Liquid Penetrant
- Radiographic
- Remote Visual Inspection (RVI)
- Eddy Current Testing
- Low Coherence Interferometry