

NON-DESTRUCTIVE TESTING TECHNICIAN

ALSO KNOWN AS:

NDT INSPECTOR

MATERIALS TESTING SPECIALIST

QUALITY CONTROL TECHNICIAN

INDUSTRIAL RADIOGRAPHER

ULTRASONIC TESTING TECHNICIAN

UNCOVER HIDDEN FLAWS WITHOUT LEAVING A TRACE.

As a Non-Destructive Testing Technician in manufacturing, you'll be the detective of material integrity, using advanced techniques to inspect and validate components. This role combines technical precision with analytical skills to ensure product quality and safety.

KEY SKILLS

Skills which may benefit anyone considering a job as a non-destructive testing technician include:

- ✔ Analytical skills
- ✔ Attention to detail
- ✔ Data analysis
- ✔ Problem solving
- ✔ Technical proficiency

CAREER PROGRESSION

In this role, you may have the opportunity to progress to other positions. Career progression opportunities include:

- Chief Engineering Officer
- Metallurgist
- Quality Engineer
- Technical Manager

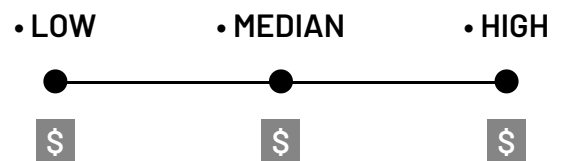
VALUES & ATTRIBUTES

Values and attributes of anyone considering a job as a non-destructive testing technician include:

- ✔ Precision
- ✔ Integrity
- ✔ Curious
- ✔ Adaptable
- ✔ Safety-conscious
- ✔ Investigative – "Thinker"

SALARY EXPECTATION

The expected salary for an NDT Technician can vary across different areas of manufacturing and may vary as you become more experienced.



RELATED INDUSTRIES

- ▶ Aerospace and Defence
- ▶ Chemicals, Hydrocarbons and Refining
- ▶ General Manufacturing and Engineering
- ▶ Process Plant Operations
- ▶ Transport Equipment and Machinery

RECOMMENDED SCHOOL SUBJECTS

- Engineering Skills
- Furnishing Skills
- Industrial Technology Skills
- Science in Practice

CORE SCHOOL SUBJECTS

- Essential Mathematics
- Essential English
- Design and Technologies (7-10)

JOB OVERVIEW

Non-Destructive Testing (NDT) Technicians play a vital role in manufacturing by inspecting materials, components, and structures without causing damage. They are responsible for detecting flaws, defects, or inconsistencies that could compromise the integrity or performance of manufactured products. Their work is crucial in ensuring quality control, safety, and reliability across various manufacturing sectors.

These professionals utilise a range of sophisticated testing methods and equipment, including ultrasonic, radiographic, magnetic particle, and liquid penetrant testing. They need a combination of technical expertise, attention to detail, and analytical skills. A typical day might involve setting up testing equipment, performing inspections, interpreting results, documenting findings, and collaborating with engineers and quality control teams to address any issues identified.

NDT Technicians often work in diverse manufacturing environments, from aerospace and automotive to energy and construction. They play a key role in maintaining product quality, preventing failures, and ensuring compliance with industry standards and specifications. Their expertise is essential in balancing manufacturing efficiency with stringent quality and safety requirements.

WHAT WILL YOU DO?

Your role may include duties as follows:

1. Perform various non-destructive tests on materials and components
2. Interpret test results and identify defects or irregularities
3. Prepare detailed reports on inspection findings
4. Calibrate and maintain NDT equipment

HOW TO BECOME A NON-DESTRUCTIVE TESTING TECHNICIAN

Becoming an NDT Technician typically involves a combination of education, training, and certification. Here are steps to pursue this career:

1. Complete Year 12 with a focus on maths, physics, and technical subjects
2. Obtain relevant vocational qualifications in NDT or engineering
3. Gain hands-on experience through apprenticeships or entry-level positions
4. Acquire NDT certifications for specific testing methods (e.g., Level II, III certifications)
5. Pursue ongoing training to stay current with evolving technologies and methodologies

VOCATIONAL EDUCATION & TRAINING

Vocational education is a common pathway for NDT Technicians. These qualifications provide hands-on skills and theoretical knowledge essential for the role. Relevant VET qualifications include:

- Certificate III in Engineering – Technical (MEM30522)
- Certificate IV in Engineering (MEM40119)
- Diploma of Engineering – Non-Destructive Testing (MEM50422)

UNIVERSITY & HIGHER EDUCATION

While not always required, higher education can enhance career prospects and lead to more advanced roles. Relevant bachelor's degrees include Materials Science and Engineering, Mechanical Engineering, or Physics. Some universities offer specialised courses or units in non-destructive testing as part of their engineering programs.

These programs typically cover advanced topics such as materials science, failure analysis, and quality control systems. Graduates develop analytical and research skills that can lead to roles in NDT method development or quality management. Some universities also offer postgraduate courses that can further specialise knowledge in areas such as advanced materials characterisation or industrial radiography, enhancing career prospects in specific industries or research roles.