# MAINTENANCE ENGINEER

**ALSO KNOWN AS:** MACHINE SERVICE TECHNICIAN | FIELD SERVICE ENGINEER

## KEEP THE HEARTBEAT OF INDUSTRY PULSING STRONG.

As a Maintenance Engineer, you'll be responsible for critical systems and machinery, ensuring they operate at peak performance. This hands-on career combines technical prowess with problem-solving finesse, directly impacting a manufacturing organisation's equipment safety, efficiency, and bottom line.

### KEY SKILLS

Skills which may benefit anyone considering a job as a maintenance engineer include:

- Analytical skills
- Communication
- Problem solving
- Technical comprehension
- Time management

### VALUES & ATTRIBUTES

Values and attributes of anyone considering a job as a maintenance engineer include:

- Safety-conscious
- Reliable
- Flexible
- Innovative
- Collaborative
- Investigative – "Thinker"

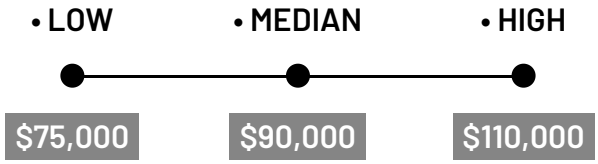
### CAREER PROGRESSION

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

- Team Leader
- Quality Engineer
- Aerospace Engineer
- Chief Engineering Officer

### SALARY EXPECTATION

The expected salary for a Maintenance Engineer can vary across different areas of manufacturing and may vary as you become more experienced.




### RELATED INDUSTRIES

▸ Aerospace and Defence ▸ General Manufacturing and Engineering

### RECOMMENDED SCHOOL SUBJECTS

- Chemistry
- Engineering Skills
- Furnishing Skills
- Physics

### CORE SCHOOL SUBJECTS

- General Mathematics
- Essential English
- Engineering


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## JOB OVERVIEW

Maintenance Engineers are the unsung heroes of the manufacturing world, responsible for the effective maintenance and repair of machinery that keeps production lines running smoothly. In this role, you'll find yourself at the intersection of preventive care and reactive problem-solving, working to minimise downtime and maximise operational efficiency.

A typical day might see you conducting routine inspections on a production line in the morning, troubleshooting a sudden equipment failure before lunch, and collaborating with the operations team in the afternoon to plan an upcoming maintenance schedule. You'll use a variety of tools and equipment, from hand tools and diagnostic devices to sophisticated computerised maintenance management systems (CMMS) and predictive maintenance software.

Your toolkit will include items such as multimeters, vibration analysers, thermal imaging cameras, and ultrasonic detectors for condition monitoring. You'll also become proficient with specialised software for maintenance planning, inventory management, and equipment performance analysis.

As a Maintenance Engineer, you'll need to balance scheduled maintenance with unexpected repairs, all while adhering to strict safety regulations and continuously looking for ways to improve system reliability and efficiency. Your work will directly impact production output, product quality, and workplace safety, making you an integral part of the manufacturing process.

## WHAT WILL YOU DO?

Your role may include duties as follows:

1. Conduct routine inspections and maintenance on machinery
2. Diagnose mechanical issues and perform immediate, effective repairs
3. Maintain accurate records of scheduled inspections, updates and servicing.
4. Work closely with operations and engineering, to coordinate maintenance schedules.
5. Ensure all maintenance activities promote a safe working environment.

## HOW TO BECOME A MAINTENANCE ENGINEER

Becoming a Maintenance Engineer typically involves a combination of education and hands-on experience. Here's a step-by-step guide:

1. Develop a strong foundation in mathematics, physics, and technical subjects during secondary school.
2. Choose your educational path through vocational education and training, or higher education, or a combination of both.
3. Gain practical experience through apprenticeships, internships, or entry-level positions in manufacturing or industrial settings.
4. Obtain relevant certifications in areas such as occupational health and safety, specific equipment operation, or maintenance methodologies.
5. Stay updated with the latest technologies and maintenance techniques through continuous professional development.
6. Build a network within the industry by joining professional associations and attending industry events.
7. Apply for Maintenance Engineer positions, highlighting both your technical skills and practical experience.


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# VOCATIONAL EDUCATION & TRAINING

An apprenticeship is one pathway to gain employment as maintenance engineer. You can undertake the following qualifications as apprenticeships:

- Certificate III in Engineering – Fixed and Mobile Plant Mechanic (MEM31419)

As an apprentice you will combine work with formal training, allowing you to gain practical skills and knowledge in a specific trade while earning a salary.

**Duration**: Apprenticeships typically last up to 4 years for full-time participants. Part-time apprenticeships may take longer, depending on the individual's work schedule and training progress.

**Work and study combination**: As an apprentice, you will work either full-time or part-time while receiving formal training from a Registered Training Organisation (RTO). School-based apprenticeships may be available.

**Eligibility:** Generally, apprenticeships do not require any formal qualifications to enter, making them accessible to a wide range of individuals, including if you are a school leaver or someone looking to change careers. There are minimum age requirements and there may be other eligibility criteria.

**Completion**: On completion you will receive a nationally recognised trade qualification, showcasing your skill and experience.

**Other skills, qualifications, accreditations and licences**

As a maintenance engineer may choose to pursue other training or certifications, licences and tickets. Qualifications and skills may be required to progress to supervisor or team leader positions.

Qualifications that may help you advance in your career include:

- Certificate IV in Process Plant Technology (PMA40116)
- Diploma of Applied Technologies (MEM50822)

Vocational education and training qualifications are a good stepping stone to higher education.

# UNIVERSITY & HIGHER EDUCATION

For a comprehensive theoretical foundation and broader career opportunities, consider pursuing a university degree:

- Bachelor of Engineering specialising in mechanical, mechatronics, or electrical.

These degrees provide in-depth knowledge of engineering principles, maintenance strategies, and management techniques, often including internship opportunities and major projects.


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