

# REFRIGERATION AND AIR CONDITIONING MECHANIC

ALSO KNOWN AS: **COOLING SYSTEMS SPECIALIST** **CLIMATE CONTROL TECHNICIAN** **HVAC TECHNICIAN**

## CONTROL THE CLIMATE IN DIVERSE ENVIRONMENTS AS A REFRIGERATION AND AIR CONDITIONING MECHANIC.

This essential role involves installing, maintaining, and repairing systems that regulate temperature and air quality in various settings. Your skills will ensure comfort and efficiency in residential, commercial, and industrial spaces.

### KEY SKILLS

Skills which may benefit anyone considering a job as a refrigeration and air conditioning mechanic include:

- ☑ Customer service
- ☑ Electrical troubleshooting
- ☑ Mechanical aptitude
- ☑ Problem solving
- ☑ Refrigerant handling

### CAREER PROGRESSION

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

- Mechanical Engineering Supervisor
- Recreational Vehicle Manufacturing Technician
- Business Manager
- Technical Manager

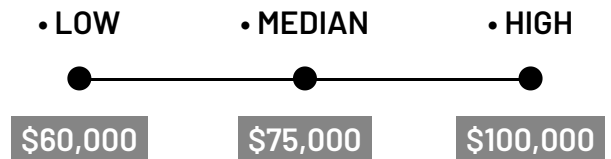
### VALUES & ATTRIBUTES

Values and attributes of anyone considering a job as a refrigeration and air conditioning mechanic include:

- ☑ Attention to detail
- ☑ Adaptable
- ☑ Safety-conscious
- ☑ Efficient
- ☑ Reliable
- ☑ Conventional – “Organiser”

### SALARY EXPECTATION

The expected salary for a Refrigeration and Air Conditioning Mechanic can vary across different areas of manufacturing and may vary as you become more experienced.



### RELATED INDUSTRIES

- ▶ General Manufacturing and Engineering

### RECOMMENDED SCHOOL SUBJECTS

- Design and Technologies (7-10)
- Engineering
- Physics
- Science (7-10)

### CORE SCHOOL SUBJECTS

- General Mathematics
- Essential English
- Engineering Skills

## JOB OVERVIEW

As a refrigeration and air conditioning mechanic, you'll work with a wide range of cooling and heating systems. Your expertise will cover everything from small residential air conditioners to large industrial refrigeration units used in food processing plants or chemical manufacturing facilities.

You'll use an array of specialised tools and equipment in your daily work, including refrigerant recovery units, vacuum pumps, leak detectors, and digital manifold gauges. The systems you work on might include split system air conditioners, heat pumps, chillers, and complex industrial refrigeration systems. You'll handle various refrigerants, such as R-410A and R-134a, and work with components like compressors, evaporators, condensers, and expansion valves. Your projects could range from installing a new HVAC system in an office building to optimising the cooling system in a data centre.

## WHAT WILL YOU DO?

Your role may include duties as follows:

1. Install heating, ventilation, air conditioning, and refrigeration systems
2. Diagnose and repair faults in HVAC/R equipment
3. Perform preventive maintenance on climate control systems
4. Ensure compliance with environmental regulations regarding refrigerants
5. Optimise system performance for energy efficiency

## HOW TO BECOME A REFRIGERATION AND AIR CONDITIONING MECHANIC

Becoming a Refrigeration and Air Conditioning Mechanic offers an exciting entry point into and career in manufacturing.

1. Complete high school, focusing on subjects like mathematics, physics, and chemistry.
2. If you have an interest, or some basic experience in a role like this, you can apply directly to an employer to work with them as an apprentice.
3. You may also find it useful to undertake a Certificate II in Engineering Pathways (MEM20422) while you are at school or before commencing an apprenticeship. This course will give you a good introduction to manufacturing concepts and equipment used.
4. Research potential employers in your area via a search engine, social media or job site. Even if there are no jobs advertised with the employer you're interested in, it can be a good idea to send a cover letter with your resume expressing your interest.

# VOCATIONAL EDUCATION & TRAINING

An apprenticeship with a manufacturer is the best pathway to gain employment in this role. You can undertake the following qualifications as apprenticeships:

- Certificate III in Refrigeration and Air Conditioning (MEM31322)

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.

## Skills, qualifications, accreditations and licences

You 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. Useful qualifications to progress in this role include:

- Certificate IV in Engineering (MEM40119)
- Diploma of Engineering – Advanced Trade (MEM50119)
- Certificate IV in Leadership and Management (BSB40520)
- Certificate IV in Business (BSB40120)

# UNIVERSITY & HIGHER EDUCATION

Holding a degree in human resources, finance, economics, marketing or management can be helpful if you are considering taking a step into leadership or a business ownership position.

Undertaking higher level learning at an undergraduate or graduate level in an engineering field would support deeper learning of technical concepts and theories, and support career advancement.