COMPOSITE TRADESPERSON

ALSO KNOWN AS: COMPOSITE TECHNICIAN

DESIGN, FABRICATE, BOND, AND REPAIR PRODUCTS USING CUTTING-EDGE COMPOSITE MATERIALS.

Embark on an innovative career as a Composite Tradesperson, where you'll design, fabricate, bond, and repair products using cutting-edge composite materials. From sleek boat shells to high-performance tennis racquets and advanced aircraft wings, your expertise will shape the future of manufacturing across diverse industries.

KEY SKILLS

Skills which may benefit anyone considering a job as a composite tradesperson include:

- Material knowledge
- Problem solving
- Technical drawing and interpretation
- Safety awareness
- Tool operation skills

VALUES & ATTRIBUTES

Values and attributes of anyone considering a job as a composite tradesperson include:

- Innovative
- Craftsmanship
- Adaptable
- Safety-conscious
- Curious
- Investigative – "Thinker"

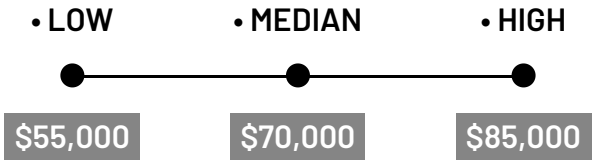
CAREER PROGRESSION

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

- Polymer Processing Technician
- Senior Composites Technician
- Team Leader
- Engineering Technician

SALARY EXPECTATION

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



RELATED INDUSTRIES

▸ Aerospace and Defence ▸ General Manufacturing and Engineering ▸ Renewables ▸ Transport Equipment and Machinery

RECOMMENDED SCHOOL SUBJECTS

- Chemistry
- Engineering
- Science (7-10)

CORE SCHOOL SUBJECTS

- General Mathematics
- Essential English
- Engineering Skills

JOB OVERVIEW

As a composite tradesperson, you'll be at the forefront of modern manufacturing, creating and assembling products using state-of-the-art composite materials such as carbon fibres, fibreglass, resins, and aramids. Your role will involve interpreting technical drawings and bringing them to life through precise mixing, layering, curing, and bonding techniques.

A composite tradesperson has the opportunity to create a diverse range of products across multiple industries. In aerospace, they might work on aircraft components and satellite structures. The automotive sector involves crafting car body panels and racing car chassis. Marine industry applications include boat hulls and yacht masts. Sports equipment like tennis racquets and bicycle frames are also common. In construction, they could produce bridge components and reinforcement bars. The energy sector requires wind turbine blades and pipeline reinforcements. Medical applications involve prosthetic limbs and orthopaedic implants. Consumer goods range from high-end luggage to musical instruments. The defence industry utilises composites for body armour and vehicle panels. Even the electronics sector benefits from composite materials in smartphone casings and antenna components. This wide array of applications showcases the versatility and importance of composite materials in modern manufacturing

A typical day as a composite tradesperson might involve preparing moulds, mixing resins, and laying up composite materials. You could start your morning by reviewing technical drawings and preparing your workstation. Throughout the day, you might operate specialised equipment such as autoclaves, vacuum bagging systems, and spray guns. You'll likely use hand tools like sanders, cutters, and measuring devices, as well as more advanced tools like infrared thermometers and ultrasonic testing equipment. Safety gear, including respirators, protective suits, and gloves, will be essential as you work with potentially hazardous materials. Your afternoon might be spent inspecting finished products, making necessary adjustments, or repairing damaged composite structures.

Composite tradespersons can also produce industrial products such as pipes at scale, and custom structural components.

WHAT WILL YOU DO?

Your role may include duties as follows:

1. Create moulds and final products based on technical specifications
2. Choose appropriate composite materials for each project
3. Implement techniques such as layering-up, vacuum-bagging, and filament winding
4. Apply pressure or heat for curing, followed by sanding, trimming, and cutting
5. Conduct thorough inspections and tests to ensure product integrity and performance

HOW TO BECOME A COMPOSITE TRADESPERSON

Becoming a composite tradesperson offers an exciting entry point into and career in manufacturing.

1. Complete high school, focusing on subjects like mathematics, physics, and chemistry.
2. Consider undertaking a Certificate II in Engineering Pathways (MEM20422) while you are at school or before commencing an apprenticeship to get an introduction to manufacturing concepts and equipment used.
3. Research potential employers in your area via a search engine, social media or job site. Look for apprenticeship or entry-level position vacancies in companies that offer on-the-job training in composites and fibreglass.
4. 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

You can undertake the following qualification as apprenticeship:

- Certificate III in Polymer Processing (Composites) (PMB30121)

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

A composite tradesperson 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.

Specialist vocational education and training qualifications that may help you progress in this role include:

- Certificate IV in Polymer Technology (PMB40121)

UNIVERSITY & HIGHER EDUCATION

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