CASTING AND MOULDING TRADESPERSON

ALSO KNOWN AS: FOUNDRY WORKER | METAL CASTER | MOULD TECHNICIAN

TRANSFORM RAW MATERIALS INTO PRECISE COMPONENTS.

As a Casting and Moulding Tradesperson, you will be creating moulds and producing cast parts for various industries. Your expertise will be crucial in manufacturing complex metal components that form the building blocks of countless products.

KEY SKILLS

Skills which may benefit anyone considering a job as a casting and moulding tradesperson include:

- Metallurgy knowledge
- Mould making
- Quality control awareness
- Safety conscious
- Temperature control

VALUES & ATTRIBUTES

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

- Attention to detail
- Safety-conscious
- Physically robust
- Adaptable
- Team Player
- Investigative – "Thinker"

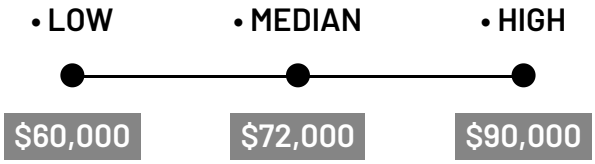
CAREER PROGRESSION

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

- Mechanical Engineering Supervisor
- Technical Manager
- Senior Composites Technician
- Aircraft Maintenance Engineer (Structural)

SALARY EXPECTATION

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



RELATED INDUSTRIES

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

RECOMMENDED SCHOOL SUBJECTS

- Design
- Engineering
- Industrial Graphics Skills

CORE SCHOOL SUBJECTS

- General Mathematics
- Essential English
- Engineering Skills

JOB OVERVIEW

As a Casting and Moulding Tradesperson, you'll be at the heart of the metal casting process, working with a variety of materials and techniques to produce high-quality components. You'll operate in foundry environments, using equipment such as furnaces, sand mixers, and pouring ladles.

In this role, you'll work with different types of metals, including iron, steel, aluminium, and bronze. You might use sand casting techniques to produce large engine blocks for the automotive industry one day, and investment casting for creating intricate aerospace components the next. The equipment you'll use includes induction furnaces for melting metal, automated moulding machines for creating sand moulds, and spectrometers for analysing metal composition. You'll also work with various types of sand and binders for mould making, as well as ceramic materials for cores and investment casting shells.

WHAT WILL YOU DO?

Your role may include duties as follows:

1. Prepare moulds and cores by selecting appropriate materials, mixing sand or other moulding compounds, and creating moulds using various techniques such as hand moulding, machine moulding, or 3D printing
2. Preparing and maintaining furnaces, ladles, and pouring equipment. Monitor temperatures and adjust equipment settings to ensure optimal casting conditions
3. Carefully control the pouring of molten metal into moulds, ensuring proper flow and temperature to achieve high-quality castings
4. Perform post-casting operations by removing castings from moulds, cleaning and finishing cast products using techniques such as grinding, sandblasting, or heat treatment
5. Conduct visual and dimensional inspections of finished castings to ensure they meet quality standards and specifications

HOW TO BECOME A CASTING AND MOULDING TRADESPERSON

Generally, you need to be trade qualified to work as a casting and moulding tradesperson. Opportunities exist for qualified workers or individuals looking to enter the industry:

1. 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.
2. 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.
3. 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 Engineering – Casting and Moulding Trade (MEM31719)

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 casting and moulding 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.

You could advance your career with the following qualifications:

- Certificate IV in Engineering (MEM40119)

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.