



Careers in manufacturing: manufactured mineral products

Technicians

This information sheet covers the following occupations within the manufactured mineral products sector:

- Process technician
- Plant technician.

Process technician

Process technicians working in the manufactured mineral products sector control the process operations of the plant and equipment used to produce ceramic, clay, glass, cement and concrete products, such as bricks, tiles, pottery, cement, lime, paving blocks and glassware.

Process technicians may:

- assess what needs to be done and allocate duties to equipment operators
- consult with management to coordinate activities
- prepare and measure raw materials
- feed raw materials and processing agents into plant machinery
- set controls and operate machinery
- check instruments and equipment to ensure correct operation and any abnormal operating conditions
- monitor maintenance requirements and arrange for equipment to be serviced
- take samples for testing, test products and record process data

- move materials by hand or using a forklift
- package products
- provide written reports on plant operation and product levels
- liaise with operators, technologists and management.

Relevant qualification:

- Certificate IV in Manufactured Mineral Products

Plant technician

Plant technicians working in the non-metallic mineral products industry will usually be involved in the constant monitoring, assessment and improvement of the quality and quantity of goods produced, and the efficiency and economics of their production. Plant technicians may specialise in ceramic, clay, glass, and cement and concrete products.

Plant technicians may:

- conduct studies to evaluate work methods and use the information from such studies to determine and improve operating efficiencies of the company
- study material-handling methods and suggest or implement changes that reduce physical effort, increase safety and reduce handling costs

Technicians

- design and modify equipment and processes to optimise use of resources and efficiency
- produce and submit proposals to management for upgrading equipment
- measure and study available floor space and draw plans of efficient plant layout
- assist in developing tests for components and finished products to make sure that they meet quality standards and operating requirements
- plan assignments and make recommendations based on worker performance, machine capacity and production schedules
- assist with or produce routine maintenance schedules
- aid in surveillance of inventories, ranging from raw materials to finished products, and prepare status reports
- supervise and advise operators and work teams, making sure work is carried out according to plan
- communicate with contractors and suppliers of goods and services
- communicate with all persons in an organisation, from senior management through to technical and operations staff.

Non-metallic mineral products plant technicians may also deal with computer operations, including computer-aided design (CAD), computer-aided manufacturing (CAM) methods and computer numerically controlled (CNC) programming, as well as robotics, just-in-time production and manufacturing resource planning.

Relevant qualification:

- Certificate IV in Manufactured Mineral Products.

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