



Careers in manufacturing: precision trades

Other trades

This information sheet covers the following occupations within the precision trades sector:

- Locksmith
- Watch and clock maker/repairer
- Optical mechanic
- Musical instrument maker.

Locksmith

Locksmiths carry out a range of mechanical and electronic work on locks, sub-assemblies and manufactured parts using a range of processes, tools and machines.

Locksmiths may:

- conduct security site survey and design master key systems
- produce keys, install and maintain locks and related security equipment
- repair, replace and maintain locking systems, alarms and access control systems
- modify locks by changing tumblers in locking mechanisms or by changing locks
- modify locks by changing tumblers in locking mechanisms or by changing locks
- assist to gain entry into automotive, fire or other security systems.

Locksmiths can specialise in lock manipulation, safes, automotive locking systems, key manufacture and identification, door and window hardware, access control or master key systems.

Relevant qualification:

- Certificate III in Locksmithing

Watch and clock maker/repairer

Watch and clock makers and repairers service, repair and adjust watches and clocks that are mechanically and/or electronically controlled.

Watch and clock makers and repairers may:

- design, create or reconstruct timepieces
- repair or replace faulty parts, such as cracked crystals, broken hands and bent teeth or wheels
- clean, test and lubricate parts
- test and maintain electronic circuits in watches and clocks
- adjust the timekeeping of watches and clocks
- replace watch and clock faces.

Relevant qualification:

- Certificate III in Watch Clock Servicing and Repair

Optical mechanics (technicians) make precision optical parts. They grind, polish and surface prescription lenses and contact lenses, and fit lenses to spectacle frames.

Optical mechanics (technicians) may:

- read and interpret prescriptions from eye specialists
- locate and mark optical centres and axes on lens blanks and make calculations to grind lenses to specifications
- grind and polish the surface of the lens by setting grinding and polishing machines
- apply protective coatings and non-reflective material to lenses
- shape and fit lenses to spectacle frames
- repair damaged and broken spectacles
- cut and polish contact lenses to prescription requirements.

With further training, optical mechanics (technicians) may specialise as optical dispensers who measure and fit clients with spectacles or make, repair and service binoculars, telescopes and other scientific optical equipment.

Relevant qualifications:

- Certificate III in Optical Mechanics

Musical instrument maker/repairer

Musical instrument makers and repairers build, repair and restore musical instruments. They may also adjust or alter the instrument according to musicians' requirements.

Musical instrument makers and repairers often require skills and techniques similar to those used in cabinet making, metal pipe making, silver smithing and wood carving.

Musical instrument makers and repairers may:

- maintain instruments to keep them in working order
- identify and repair damaged or faulty parts
- select and prepare timber and manufactured board
- fit mechanisms, such as stops, valves and tuning keys
- make jigs, templates or prototypes for the production of instruments.

Relevant qualifications:

- Certificate IV in Furniture Design and Technology

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