

# Unit of Competency CPCCJS3004

## Manufacture and install continuous handrailing and special stair components

### Application

This unit of competency specifies the skills and knowledge required to manufacture, join and install continuous handrailing and special stair components, meeting all relevant requirements of the National Construction Code (NCC), Australian Standards, work health and safety (WHS), and Commonwealth and state or territory legislation.

The unit includes wreaths, scrolls, bullnose steps and decorative features connecting straight lengths of handrail to wreaths or scrolls, with the use of handrail fittings or bolts to form a continuous handrail system.

Completion of the general construction induction training program specified by the model Code of Practice for Construction Work is required for any person who is to carry out construction work. Achievement of *CPCCWHS1001 Prepare to work safely in the construction industry* meets this requirement.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Prerequisite Unit

CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry.

### Elements and Performance Criteria

1. Plan and prepare.	1.1	Read and interpret work instructions and plan sequence of work.
	1.2	Plan all work to comply with laws and regulations, the National Construction Code (NCC), Australian Standards, work health and safety (WHS) and environmental requirements, manufacturers' specifications, workplace requirements, drawings and specifications.
	1.3	Select tools and equipment, check for serviceability and report any faults.
	1.4	Select and use personal protective equipment (PPE) for each part of the task.
	1.5	Inspect work site, locate services, assess hazards and apply risk controls, including required signage and barricades.
	1.6	Select materials required for task, calculate quantities, handle safely and prepare and position ready for use.
2. Prepare wreath for continuous handrailing.	2.1	Determine pitch of stair and change of direction of handrail from stair design.
	2.2	Set out wreath and assess total area required to determine thickness of material to be prepared.
	2.3	Prepare material, cut square to wreath length, and set-out to shape for dressing.

	2.4	Form wreath to square section with designated twist, and free of bumps.
3. Join and mould wreath to straight sections.	3.1	Mould wreath to handrail shape and fine sand to smooth finish.
	3.2	Measure straight sections of handrail and cut to length with ends square to join wreath with tight joints.
	3.3	Pre-fit handrail in lengths, disassemble and rejoin in location.
4. Manufacture scroll and wreath, and join to handrail.	4.1	Set out and prepare scroll and wreath to designed shape.
	4.2	Prepare materials to scroll and wreath dimensions, apply set out patterns and form scroll and wreath to basic shapes.
	4.3	Mould scroll and wreath to handrail shape and fine sand to smooth finish.
	4.4	Join scroll and wreath to handrail with tight joints.
5. Manufacture and install bullnose treads.	5.1	Review design and method of constructing bullnose tread.
	5.2	Manufacture bullnose tread and riser and fix block support.
	5.3	Cut and dress tread with nosing to shape.
	5.4	Fit bullnose tread, riser and to stairs and secure in location.
6. Manufacture and install brackets and decorative features.	6.1	Fix brackets and scotia and fix into place using the cut and mitred string method.
	6.2	Fix decorative features and sand surfaces to smooth finish to requirements.
7. Clean-up.	7.1	Clean up, meeting all legislative and workplace requirements for safety, waste disposal and materials handling.
	7.2	Check, maintain and store tools and equipment and report any faults.

## Foundation skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

Supersedes and is equivalent to CPCCJS3004A Manufacture and install continuous handrailing and special stair components.

## Links

Companion Volume Implementation Guide:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>

# Assessment Requirements for CPCCJS3004

## Manufacture and install continuous handrailing and special stair components

### Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by:

- manufacturing the following special stair components:
  - wreath
  - bullnose tread
  - common stair brackets
  - decorative scroll with wreath
  - scotia
- joining the scroll and wreath to a straight handrail to produce one continuous handrail.

### Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- requirements of the National Construction Code and Australian Standards relevant to manufacturing and installing continuous handrailing and special stair components
- workplace quality policies and standards for manufacturing and installing continuous handrailing and special stair components
- safety requirements for manufacturing and installing continuous handrailing and special stair components
- commonly used stair construction and joining methods for manufacturing and installing continuous handrailing and special stair components
- processes to interpret drawings and specifications for manufacturing and installing continuous handrailing and special stair components
- measuring and setting out processes for manufacturing and installing continuous handrailing and special stair components
- methods of forming and constructing handrails including using wreaths and ramps
- special feature components of stair construction
- timber carving and moulding techniques for manufacturing and installing continuous handrailing and special stair components
- types and uses of static machines, tools and equipment for manufacturing and installing continuous handrailing and special stair components
- types and characteristics of different stairs
- types and use of adhesives, fixings and fasteners applicable to stair construction
- types of materials and their characteristics applicable to the manufacture and installation of continuous handrailing and special stair components.

### Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

This unit must be assessed in the workplace or a close simulation using realistic workplace conditions and standards, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

## Links

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