



Australian Government

CPCCSF3003 Carry out multistrand post-tensioning

Release: 1

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Modification History

Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.

Supersedes and is equivalent to CPCCSF3003A Carry out multistrand post-tensioning. Updated to meet the Standards for Training Packages 2012.

Application

This unit specifies the skills and knowledge required to carry out multistrand post-tensioning in accordance with specifications. It includes planning and preparing for the work, laying and fixing anchorages and cables, defining the work area, stressing tendons, finishing tensioning and cleaning up.

It applies to workers carrying out multistrand post-tensioning for a construction project, and who would be expected to take responsibility for organising and completing these tasks with a high degree of self direction.

Completion of the general construction induction training program, specified in the Safe Work Australia model *Code of Practice: Construction Work*, is required by anyone carrying 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.

Pre-requisite Unit

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

Unit Sector

Steelfixing

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe what needs to be done to demonstrate achievement of the element.

1 Plan and prepare to carry out multistrand

1.1 Interpret work order and associated documentation and clarify requirements with relevant persons.

- post-tensioning.
- 1.2 Plan all work to comply with relevant legislation, regulations, standards, codes, work health and safety (WHS), environmental and workplace requirements.
 - 1.3 Select tools and equipment required for work tasks, check for serviceability and rectify or report identified faults.
 - 1.4 Calculate materials quantities and curing requirements.
 - 1.5 Obtain, prepare and safely handle materials for the task, and situate them ready for use.
 - 1.6 Erect required safety signage and barricades and fit personal protective equipment (PPE).
- 2 Lay and fix anchorages and cables.
- 2.1 Fix tendons and recess formers in location in accordance with job drawings.
 - 2.2 Lay ducting profile, push through specified number of strands and verify in accordance with job drawings.
 - 2.3 Position profile anchorages in accordance with specifications.
 - 2.4 Position form head and anchorages in accordance with specifications.
 - 2.5 Inspect installed cables in accordance with specifications and relevant standards.
 - 2.6 Fix grout tubes in accordance with manufacturer requirements and engineering specifications.
 - 2.7 Monitor grout tubes during concrete pour.
- 3 Define work area for multistrand post-tensioning.
- 3.1 After suitable curing time, define safe working area in accordance with WHS and regulatory requirements.
 - 3.2 Erect barricades and signage as required to isolate safe work areas.
- 4 Stress tendons.
- 4.1 Remove recess formers.

- 4.2 Set up anchor blocks and wedges in accordance with manufacturer design.
 - 4.3 Carry out stressing operations to nominated loads in accordance with engineering standards using authorised calibrated stressing equipment.
 - 4.4 Measure extensions and record on standard forms for approval by engineer.
- 5 Finish tensioning.
- 5.1 Cut and seal protruding strands in accordance with manufacturer requirements.
 - 5.2 Mix cement grout and pump in accordance with specifications and relevant standards.
- 6 Clean up.
- 6.1 Clear work area and dispose of, reuse or recycle materials in accordance with regulatory and workplace requirements.
 - 6.2 Clean, check, maintain and store tools and equipment in accordance with manufacturer and workplace requirements.

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 CPCCSF3003A Carry out multistrand post-tensioning.

Links

Companion volumes to this training package are available at the VETNet website - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>