

| | | | |
|--------------|--|----------------|-----------|
| Title | Install steel construction structures | | |
| Level | 4 | Credits | 10 |

| | |
|----------------|---|
| Purpose | People credited with this unit standard are able to prepare for installation of steel construction structures; install steel construction structures; and complete installation work and documentation. |
|----------------|---|

| | |
|-----------------------|--|
| Classification | Mechanical Engineering > Engineering - Fabrication |
|-----------------------|--|

| | |
|------------------------|----------|
| Available grade | Achieved |
|------------------------|----------|

Guidance Information

- 1 Candidates should be certified for the particular type of welding performed under performance criterion 2.3, and must be suitably trained in installation practices, use of tools, use of the height access and safety equipment, and lifting equipment. All aspects of an installation must be supervised by a competent person as described in NZS 5131:2016.
- 2 Legislation and reference
Health and Safety at Work Act 2015.
AS/NZS 5131:2016, Structural steelwork – Fabrication and erection.
- 3 Definitions
Accepted industry practice – approved codes of practice and standardised procedures accepted by the wider mechanical engineering industry sectors as examples of best practice.
Construction plan – details of work to be carried out and may include drawings, specifications, written instructions, material lists, and joining methods.
Workplace procedures – procedures used by the organisation carrying out the work and applicable to the tasks being carried out. Examples are – standard operating procedures, safety procedures, equipment operating procedures, codes of practice, quality management practices and standards, procedures to comply with legislative and local body requirements.
- 4 Assessment information
 - a This unit standard is concerned with the installation of pre-fabricated steel construction steelwork structures included in section 1.2 of AS/NZS 5131: 2016. It does not include site preparation.
 - b Evidence may be gathered by the candidate over several work sites and may need to be spread between several time periods. There typically will be jobs where part of the job is completed in conjunction with other personnel and fabricators. The evidence may therefore relate to work jointly performed with

- other team members. For the purposes of assessment, work carried out by the candidate as part of a team should be clearly identified.
- c All activities must comply with applicable workplace procedures and must be consistent with accepted industry practice.

Outcomes and performance criteria

Outcome 1

Prepare for the installation of steel construction structures.

Performance criteria

- 1.1 Work to be done is determined from construction plan and engineer's instructions.
- 1.2 Resources are assembled and made ready for work.
- Range examples are – manpower, machines, tools, height access equipment, safety equipment, consumables.
- 1.3 Potential risks are identified and plans to manage them are developed.
- Range may include but is not limited to – work scheduling, completion, timing, costs, health and safety, resource availability.
- 1.4 Construction sequence is planned to achieve the client's specifications.
- Range includes but is not limited to – delivery of structures and materials, wastage, time, cost, logical, practical, start and completion dates.
- 1.5 Required permits and compliance certificates are obtained.
- 1.6 Documented work plan is communicated.

Outcome 2

Install steel construction structures.

Performance criteria

- 2.1 Material, equipment, and tools are received and checked against the work plan.
- 2.2 Structures are lifted and placed into position using appropriate lifting equipment.
- 2.3 Structures are assembled and joined in accordance with the construction plan.
- Range examples of joining methods – weld, rivet, bolt and nut; maintain integrity of component corrosion resistance and fire protection coatings; erection tolerance; use of height access and safety equipment.

- 2.4 Workplace health and safety procedures are followed.
- 2.5 The structures are aligned, levelled, and bolted-up in accordance with the construction plan.

Outcome 3

Complete installation work and documentation.

Performance criteria

- 3.1 Installation is completed within the accepted tolerances specified in the construction plan.
- 3.2 All equipment, tools, and excess materials are removed from site.
- 3.3 Relevant job completion documentation is prepared and forwarded to the project manager, including details of any deviations from the construction plan.
- 3.4 The completed installation is handed over.

| | |
|----------------------------|------------------|
| Planned review date | 31 December 2023 |
|----------------------------|------------------|

Status information and last date for assessment for superseded versions

| Process | Version | Date | Last Date for Assessment |
|--------------|---------|---------------|--------------------------|
| Registration | 1 | 26 April 2018 | N/A |

| | |
|--|------|
| Consent and Moderation Requirements (CMR) reference | 0013 |
|--|------|

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Competenz qualifications@competenz.org.nz if you wish to suggest changes to the content of this unit standard.