

Title	Fabricate and install pipe supports, hangers, braces, seismic restraints and brackets for fire sprinkler systems on site		
Level	3	Credits	10

Purpose	<p>This unit standard is for the personnel employed in the fire protection industry and covers the fabrication and installation of pipe supports, hangers, braces, and brackets for fire sprinkler systems on site.</p> <p>People credited with this unit standard are able to: prepare for fabrication and installation of pipe supports, hangers, braces, seismic restraints and brackets for fire sprinkler systems on site; and fabricate and install pipe supports, hangers, braces, seismic restraints, and brackets for fire sprinkler systems on site.</p>
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Classification	Mechanical Engineering > Fixed Fire Protection Systems
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Available grade	Achieved
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Guidance Information

- Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the:

Building Act 2004,
NZS 4515:2009, *Fire sprinkler systems for life safety in sleeping occupancies (up to 2000 square metres)*
NZS 4541:2020, *Automatic fire sprinkler systems*.

Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.
- Definitions**

Systems documentation refers to the documentation required to be maintained by NZS 4541:2020 including logbook, test reports, equipment details and drawings, specifications, contract agreement, additions and alterations, fire reports, building consents standards, codes of practice, installation instructions, test and commissioning procedures, and test and maintenance records.

Workplace procedures refer to the documented procedures used by the organisation carrying out the work and applicable to the tasks being carried out. They may include but are not limited to – standard operating procedures, site safety procedures, equipment operating procedures, codes of practice, quality assurance procedures, housekeeping standards, charging of time and materials, management of drawings and documentation, procedures to comply with legislative and local body requirements.

3 Assessment information

- a. All activities must comply with relevant legislative and/or regulatory requirements and recognised codes of practice.
- b. All activities must demonstrate safe working practices.
- c. All activities must be completed and reported within agreed timeframes.
- d. All activities must be done in accordance with applicable customer requirements, systems documentation, plans and workplace procedures.

4 Range

For assessment purposes, competence must be demonstrated on at least four systems and may include steel and plastic pipes.

Outcomes and performance criteria**Outcome 1**

Prepare for fabrication and installation of pipe supports, hangers, braces, seismic restraints, and brackets for fire sprinkler systems on site.

Performance criteria

- 1.1 Pipe supports, and brackets fabrication and installation requirements are identified.
- 1.2 Seismic restraints and fixings are identified.
- 1.3 Fabrication and installation requirements are checked against the physical site requirements.

Range may include but is not limited to – site measurement, structural details, other services.
- 1.4 Plans for fabrication and installation are prepared.
- 1.5 Fabrication equipment is prepared and set up.

Range may include but is not limited to – pipe threading machine, roll groove machine, pipe cutting equipment, hole saw.
- 1.6 Fasteners and other required materials are purchased or drawn from stock and delivery to the sites is confirmed.
- 1.7 Pipe supports, hangers, braces, and brackets are cut, shaped, and prepared.
- 1.8 Seismic restraints and fixings are cut, shaped, and prepared.

Outcome 2

Fabricate and install pipe supports, hangers, braces, seismic restraints, and brackets for fire sprinkler systems on site.

Performance criteria

- 2.1 Safety requirements are complied with during fabrication of pipe supports, hangers, braces, seismic restraints, and brackets.
- 2.2 Pipe supports, hangers, braces, and brackets are installed.
- 2.3 Seismic restraints and fixings are installed.
- 2.4 Premises are cleared of all surplus introduced materials and equipment and left in a clean and tidy condition.
- 2.5 Work documentation is completed.

Replacement information	This unit standard and unit standard 29928, unit standard 28829, and unit standard 28830 replaced unit standard 18434.
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Planned review date	31 December 2029
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	15 October 2015	31 December 2026
Review	2	27 June 2024	N/A

Consent and Moderation Requirements (CMR) reference	0013
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact the Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.