

Mark out, cut, join and test pipework for plumbing, gasfitting and drainlaying

Level 2

Credits 6

Purpose People credited with this unit standard are able to: record dimensions, mark, cut, join and test water supply pipework and gas supply pipework; and record dimensions, mark, cut, position and connect drainlaying pipework.

Subfield Plumbing, Gasfitting and Drainlaying

Domain Core Plumbing, Gasfitting, and Drainlaying

Status Registered

Status date 23 January 2009

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Entry information Prerequisite: Current plumbing certificate/limited certificate or licence as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006.

Accreditation Evaluation of documentation by NZQA.

Standard setting body (SSB) The Skills Organisation

Accreditation and Moderation Action Plan (AMAP) reference 0008

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

Special notes

- 1 Assessment for element one of this unit standard must be supervised by a registered plumber; element two of this unit standard must be supervised by a registered gasfitter. Element three of this unit standard must be supervised by a registered drainlayer.
- 2 References
 - Current versions and any related compliance documents for the following are available at <http://www.dbh.govt.nz>.
 - New Zealand Building Code (NZBC) Clause G12 *Water Supplies*.
 - NZBC Clause G13 *Foul Water*.
 - NZBC Clause G10 *Piped Services*.

- 3 Performance for performance criteria 1.9, 2.9 and 3.7 is not required to be carried out to the same regulatory requirements as in unit standard 2143 *Install secure and maintain water supply pipework in buildings*.

Elements and performance criteria

Element 1

Record dimensions, mark, cut, join and test water supply pipework for plumbing, gasfitting and drainlaying.

Range for a series of pipes making up a system;
water supply pipework may include but is not limited to – copper, galvanised mild steel, polybutylene, cross polyethylene, polypropylene random copolymer (PP-R), associated fittings;
jointing methods – brazing, compression, crimp, crox, push pit, screwed thread.

Performance criteria

- 1.1 Pipework dimensions are determined in accordance with job requirements.
Range determined from plans or measured from the job.
- 1.2 Pipework allowances are applied in accordance with job requirements.
Range may include but is not limited to – fitting allowance, jointing allowance, bracket support allowance.
- 1.3 Pipework dimension information is recorded on a pipe layout chart in accordance with job requirements.
- 1.4 Pipes are marked ready for cutting in accordance with recorded dimensions.
- 1.5 Pipes are cut accurately in accordance with marks.
- 1.6 Pipes are cut accurately so that the cut face is square and at 90 degrees to the pipe sides.
- 1.7 Pipe joints are check fitted in accordance with job requirements.
- 1.8 Pipes are joined in accordance with job requirements.
- 1.9 Soundness tests are carried out in accordance with job requirements.

Element 2

Record dimensions, mark, cut, join and test gas supply pipework.

Range for a series of pipes making up a system;
gas pipework may include but is not limited to – copper, galvanised mild steel, cross polyethylene, associated fittings;
jointing methods include but are not limited to – join threading, copper pipe joins, flared fittings, compression fittings.

Performance criteria

2.1 Pipework dimensions are determined in accordance with job requirements.

Range determined from plans or measured from the job.

2.2 Pipework allowances are applied in accordance with job requirements.

Range may include but is not limited to – fitting allowance, jointing allowance, bracket support allowance.

2.3 Pipework dimension information is recorded on a pipe layout chart in accordance with job requirements.

2.4 Pipes are marked ready for cutting in accordance with recorded dimensions.

2.5 Pipes are cut accurately in accordance with marks.

2.6 Pipes are cut accurately so that the cut face is square and at 90 degrees to the pipe sides.

2.7 Pipe joints are check fitted in accordance with job requirements.

2.8 Pipes are joined in accordance with job requirements.

2.9 Soundness tests using an inert gas are carried out in accordance with job requirements.

Element 3

Record dimensions, mark, cut, position and connect drainlaying pipework.

Range pipework material – uPVC, earthenware;
fittings include – 1 gully trap and gully dish, 1 inspection junction, 1 level invert, 1 88° plain bend, 1 uPVC to earthenware adapter, 1 straight inspection.

Performance criteria

3.1 Excavation no more than 1m is carried out in accordance with job requirements.

- 3.2 Stable sub-base is identified in accordance with visual assessment and job requirements.
- 3.3 Base material is selected, placed, and levelled in accordance with site conditions and job requirements.
- 3.4 Pipes are cut in accordance with job requirements.
- 3.5 Pipes are positioned in accordance with job requirements.
- 3.6 Pipework is installed and connected in accordance with job requirements.
- 3.7 Soundness tests are carried out in accordance with job requirements.

Please note

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact The Skills Organisation info@skills.org.nz if you wish to suggest changes to the content of this unit standard.