

Title	Install basic sanitary plumbing systems		
Level	4	Credits	5

Purpose	<p>This unit standard is for people who work in the plumbing industry.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> – identify components used in water supply systems; – record dimensions, mark, cut, join, and test water supply pipework; – identify components used in sanitary plumbing systems and their correct positioning; – record dimensions, mark, cut, join, and test pipework for foul water; and – install sanitary fixtures in accordance with job requirements.
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Classification	Plumbing, Gasfitting and Drainlaying > Plumbing
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Available grade	Achieved
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Guidance Information

- 1 References

Building Act 2004;
 Health Act 1956;
 Health and Safety at Work Act 2015;
 Plumbers, Gasfitters, and Drainlayers Act 2006;
 Plumbers, Gasfitters, and Drainlayers Regulations 2010;
 The following standards, which are available at <https://www.standards.govt.nz>:
 AS/NZS 3500.2:2003 *Plumbing and drainage – Sanitary plumbing and drainage*,
 NZS 5807:1980 *Code of practice for industrial identification by colour, wording or other coding*;
 The following clauses, current versions, and any related compliance documents, which are available at <https://www.building.govt.nz>:
 New Zealand Building Code Clause G10 Piped Services,
 New Zealand Building Code Clause G12 Water Supplies,
 New Zealand Building Code Clause G13 Foul Water;
 and all subsequent amendments and replacements.
- 2 All work must be in accordance with codes, standards, and manufacturer instructions.

3 Definitions

Job requirements – specific requirements of the job at hand not covered by job specifications.

Job specifications – instructions (oral, written, graphic) and may include any of the following: manufacturer instructions; design drawing detail specifications; specifications from a specialist source such as an architect, designer, engineer, or a supervisor; and site or work specific requirements. Where job specifications are in conflict with applicable legislation, standards, and/or codes, such legislation, standards, and/or codes shall take precedence for the purpose of assessment.

4 Candidates must hold a current limited certificate or exemption under supervision as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006.

5 All practical activities are to be carried out in a way that avoids harm to people and damage to property, environment, existing installed services, materials, tools, and equipment.

Outcomes and performance criteria

Outcome 1

Identify components used in water supply systems.

Range must include but is not limited to – pipe, isolation valves, wingbacks, bends and tees, couplers, insulation, pipework supports.

Performance criteria

1.1 Identify the functions of components within a water supply system.

1.2 Identify the correct position of components within a water supply system.

Range evidence must include a schematic drawing of a system.

Outcome 2

Record dimensions, mark, cut, joint, and test water supply pipework.

Range for a series of pipes making up a system; pipework may include but is not limited to – copper, polybutylene, cross linked polyethylene, associated fittings; jointing methods may include but are not limited to – brazing, compression, crimp, crox, push fit, screwed thread.

Performance criteria

2.1 Determine pipework dimensions in accordance with job requirements.

Range determined from plans or measured from the job, and includes application of relevant allowances for fitting, jointing, and bracket support.

- 2.2 Record pipework dimension information in accordance with job requirements.
- 2.3 Accurately mark and cut pipes in accordance with required dimensions.
- 2.4 Check-fit and joint pipes in accordance with job requirements.
- 2.5 Carry out soundness tests in accordance with standards and codes.

Outcome 3

Identify components used in sanitary plumbing systems and their correct positioning.

Range must include but is not limited to – pipe, water traps, vents, rodding point, vent cowl, bend, gully trap.

Performance criteria

- 3.1 Identify components' functions within a sanitary plumbing system.
- 3.2 Identify the correct position of components within a sanitary plumbing system.

Range evidence must include a schematic drawing of a system.

Outcome 4

Record dimensions, mark, cut, joint, and test pipework for foul water.

Range for a series of pipes making up a foul water system; foul water system pipework includes – uPVC, associated fittings; jointing methods may include but are not limited to – solvent cement, rubber ring.

Performance criteria

- 4.1 Determine pipework dimensions in accordance with job requirements.
Range determined from plans or measured from the job, and includes application of relevant allowance for fitting, jointing, and bracket support.
- 4.2 Record pipework dimensions information on a pipe layout chart in accordance with job requirements.
- 4.3 Accurately mark and cut pipes in accordance with recorded dimensions.
- 4.5 Check-fit and joint pipes in accordance with job requirements and manufacturer instructions.
- 4.6 Carry out soundness tests in accordance with standards and codes.

Outcome 5

Install sanitary fixtures in accordance with job requirements.

Range must include but is not limited to – wash hand basin, WC pan and cistern.

Performance criteria

5.1 Determine position of fixture.

Range determined from plans or measured from the job, and includes allowance for positioning of associated pipework.

5.2 Record fixture positions within the room on an as-built drawing.

5.3 Secure fixtures to structural elements as appropriate.

5.4 Connect fixtures to water supply connections and foul water discharge points.

5.5 Carry out installation and commissioning tests.

Planned review date	31 December 2022
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 October 2017	N/A

Consent and Moderation Requirements (CMR) reference	0003
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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 Skills Organisation reviewcomments@skills.org.nz if you wish to suggest changes to the content of this unit standard