

Title	Carry out pipe bursting		
Level	4	Credits	6

Purpose	People credited with this unit standard are able to: prepare a site for pipe bursting operations; set up machinery and equipment for pipe bursting operations; set up and install product pipe; disestablish a site after completing pipe bursting operations; and care for and maintain pipe bursting machinery and equipment.
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Classification	Infrastructure Works > Pipeline Construction and Maintenance
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Available grade	Achieved
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Guidance Information

- Legislation and references relevant to this unit standard include: Resource Management Act 1991; Local Government Act 2002; Health and Safety at Work Act 2015, and subsequent amendments; Health and Safety in Employment (Pipelines) Regulations 1999; *Excavation Safety – Good Practice Guidelines 2016*, available from <http://www.worksafe.govt.nz/worksafe/information-guidance/all-guidance-items/excavation-safety-gpg>; *National Code of Practice for Utilities' Access to the Transport Corridors*, Wellington: NZ Utilities Advisory Group, available from <http://www.nzuag.org.nz/national-code/>; Local and/or territorial authority requirements.
- Definitions**

Job specifications, for the purpose of this unit standard, refer to instructions (oral, written, and/or graphic) that specify the result or results to be achieved and/or how the work is to be done, in relation to a specific job.

Maintenance refers to pre-start checks and upkeep tasks required of an operator and does not include repairs.

Manufacturer's instructions may include specifications; installation, handling, use, and maintenance instructions; and safety data sheets.

Organisational procedures – instructions to staff, and procedures which are documented in memo or manual format and are available in the workplace. These requirements include but are not limited to – site specific requirements, manufacturers' specifications, product quality specifications, and legislative or regulatory requirements.

Pipe bursting is a trenchless method for replacement of buried pipelines (such as sewer, water, or natural gas pipes) with a new pipe of the same or larger diameter.
- Assessment against this unit standard must be based on evidence from a workplace context.

Outcomes and performance criteria

Outcome 1

Prepare a site for pipe bursting operations.

Performance criteria

- 1.1 Public and work area protection is set up as directed by the site supervisor and/or the Site Traffic Management Supervisor (STMS).
- 1.2 On-site hazards are identified and reported and/or controlled in accordance with organisational procedures.
- 1.3 On-site environmental and quality controls are implemented in accordance with job specifications and specifications.
- 1.4 General site layout, existing services, and ground conditions are visually inspected, and any potential problems affecting the operation are reported in accordance with organisational procedures.
- 1.5 Any potential problems with setting up the product pipe ready for installation are identified and reported in accordance with organisational procedures.
- 1.6 Surfaces are opened and pits excavated as required for entry, exit and lateral works and for visual inspection during the product pipe installation in accordance with organisational procedures.
- 1.7 Existing connections are disconnected and/or bypassed.

Range any laterals, mainline flow.

Outcome 2

Set up machinery and equipment for pipe bursting operations.

Performance criteria

- 2.1 Machinery and equipment is checked to establish its fitness for the operation and to identify any faults and maintenance needs. Any problems are reported in accordance with organisational procedures.

Range five of – oiler, air/hydraulic supply equipment, pulling system, displacement hammer, winch, power source, burst head, expander, flex joints, rods, cables.
- 2.2 Communication systems are established and confirmed in accordance with organisational procedures.
- 2.3 Machinery and equipment is set up in accordance with organisational procedures and job specifications.

Outcome 3

Set up and install product pipe.

Range one of – pipe segments, pipe strings.

Performance criteria

3.1 Product pipe is checked to establish its fitness for the operation and to identify any faults. Any problems are reported in accordance with organisational procedures.

3.2 Product pipe is set up in accordance with organisational procedures and job specifications.

Range one of – jointing of segments, pipe string layout.

3.3 Product pipe is installed in accordance with job specifications.

Range main line connections, any lateral connections.

Outcome 4

Disestablish a site after completing pipe bursting operations.

Performance criteria

4.1 Site is disestablished in accordance with job specifications and organisational procedures.

Range site securing devices, removal and/or disposal of materials, removal of plant and equipment, any required surface reinstatement.

Outcome 5

Care for and maintain pipe bursting machinery and equipment.

Range five of – oiler, air/hydraulic supply equipment, pulling system, displacement hammer, winch, power source, burst head, expander, flex joints, rods, cables.

Performance criteria

5.1 Machinery and equipment are used throughout the operation in accordance with manufacturer's instructions and organisational procedures.

Range unloading and securing, setting up, disassembly, cleaning, storage.

5.2 Scheduled maintenance tasks are carried out in accordance with manufacturer's instructions and organisational procedures.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	16 March 2017	31 December 2023
Review	2	26 August 2021	31 December 2023

Consent and Moderation Requirements (CMR) reference

0101

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