

Title	Install and service pneumatic or electro-pneumatic equipment		
Level	3	Credits	5

Purpose	People credited with this unit standard are able to: <ul style="list-style-type: none"> – install pneumatic or electro-pneumatic equipment; – test pneumatic or electro-pneumatic equipment; and – service pneumatic or electro-pneumatic equipment.
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Classification	Industrial Measurement and Control > Industrial Measurement and Control - Maintenance
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Available grade	Achieved
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Guidance Information

- 1 This unit standard has been developed for learning and assessment in a workplace environment.
- 2 References

ANSI/ISA-51.1-1979 (R1993) *Process Instrumentation Terminology*;
 Electricity Act 1992;
 Electricity (Safety) Regulations 2010;
 Health and Safety at Work Act 2015 and associated regulations;
 ISSN 0114-0663, *New Zealand Electrical Codes of Practice*, available from Worksafe, <https://worksafe.govt.nz/>;
 and all subsequent amendments and replacements.
- 3 Definitions

Industry requirements – includes all asset owner requirements; manufacturers' specifications; enterprise requirements which cover the documented workplace policies, procedures, specifications, and business requirements; and quality management requirements relevant to the workplace in which the assessment is carried out.

Service – planned activity during normal operation, that involves, inspection, cleaning, testing, adjusting or making minor repairs to a piece of equipment to ensure that it works properly.
- 4 Range

Pneumatic or electro-pneumatic equipment – cylinders, control valves, pressure relief valves, pressure regulators, driers, boosters;
 evidence of at least one type of equipment is required.

- 5 Recommended skills and knowledge: Unit 28083, *Demonstrate knowledge of hydraulic and pneumatic control equipment used in industrial process control applications*; and Unit 2630, *Demonstrate knowledge of pressure measurement systems used in industry*.

Outcomes and performance criteria

Outcome 1

Install pneumatic or electro-pneumatic equipment.

Performance criteria

- 1.1 Select devices according to process conditions and accuracy requirements of the installation.
- Range may include but is not limited to – pressure, flow, temperature, materials.
- 1.2 Install devices using selected materials.
- Range may include but is not limited to – tubing, piping, threading, mounting, sealants, isolation.
- 1.3 Commission pneumatic or electro-pneumatic equipment.
- Range may include but is not limited to – bleeding system, leak testing.

Outcome 2

Test pneumatic or electro-pneumatic equipment.

Performance criteria

- 2.1 Explain and follow safe work procedures.
- Range may include but is not limited to – process isolation, loop isolation.
- 2.2 Select test equipment according to accuracy and range of devices.
- Range may include but is not limited to – gauges, test set, electrical solenoid supply.
- 2.3 Identify type and cause of typical errors.
- Range may include but is not limited to – air leaks, solenoid failure.
- 2.4 Adjust devices, as specified by the data sheet.
- 2.5 Document test results in accordance with industry requirements.

Outcome 3

Service pneumatic or electro-pneumatic equipment.

Performance criteria

3.1 Locate, interpret, and apply technical information for servicing equipment.

3.2 Explain and follow safe work procedures.

Range may include but is not limited to – process isolation, loop isolation.

3.3 Complete servicing of equipment to ensure continued operation.

Range may include but is not limited to – tools, materials, parts, techniques, specifications.

3.4 Produce reports and documentation in accordance with industry requirements.

Replacement information	This unit standard was replaced by skill standard 40235.
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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	31 October 1995	31 December 2013
Revision	2	30 October 1997	31 December 2013
Revision	3	3 April 2001	31 December 2013
Review	4	22 June 2001	31 December 2013
Review	5	19 May 2008	31 December 2019
Review	6	21 November 2013	31 December 2027
Rollover and Revision	7	28 June 2018	31 December 2027
Review	8	30 January 2025	31 December 2027

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>.