

<b>Title</b>	<b>Install and service pneumatic or electro-pneumatic equipment</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>5</b>

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

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## 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.

<b>Planned review date</b>	31 December 2021
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**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	N/A
Rollover and Revision	7	28 June 2018	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	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](mailto:reviewcomments@skills.org.nz) if you wish to suggest changes to the content of this unit standard.