

Title	Demonstrate knowledge of instruments used in the energy and chemical industry		
Level	3	Credits	5

Purpose	<p>This unit standard is intended for people working as boiler operators and energy and chemical process operators in an energy and chemical plant.</p> <p>People credited with this unit standard are able to demonstrate knowledge of instruments used in the energy and chemical industry.</p>
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Classification	Energy and Chemical Plant > Monitoring of Energy and Chemical Plant
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Available grade	Achieved
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Guidance Information

None.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of instruments used in the energy and chemical industry.

Performance criteria

1.1 Describe pressure indicating instruments in terms of their design and operating concepts.

Range evidence of four types of instrument is required.

1.2 Describe the relationship between unit measures used for indicating pressure in terms of conversion between these unit measures.

Range units include but are not limited to – pounds per square inch, bar absolute, bar gauge, kilopascal, millimetres of water, atmospheres.

1.3 Describe temperature indicating instruments in terms of their design and operating concepts.

Range evidence of four types of instrument is required.

1.4 Describe the relationship between Fahrenheit and Celsius in terms of conversion between these unit measures.

1.5 Describe level measurement instruments in terms of their design and operating concepts.

Range evidence of four types of instrument is required.

1.6 Describe flow measurement instruments in terms of their design and operating concepts.

Range evidence of four types of instrument is required.

Replacement information	This unit standard replaced unit standard 3054. This unit standard was replaced by skill standard 40356.
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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Status information and last date for assessment for superseded versions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	24 October 2014	31 December 2022
Review	2	27 February 2020	31 December 2026
Review	3	30 January 2025	31 December 2026

Consent and Moderation Requirements (CMR) reference	0079
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.