Title	**Read and interpret HVAC system drawings**		
Level	**3**	**Credits**	**3**

Purpose	This unit standard is intended primarily for use in the training of personnel in the heating, ventilating, and air conditioning (HVAC) industry and covers interpretation of HVAC systems drawings to determine components, shapes, sizes, interfaces or connections, flow, pressure, installation requirements, and any special requirements. People credited with this unit standard are able to read and interpret HVAC system drawings.

Classification	Mechanical Engineering > Heating, Ventilating, and Air Conditioning

Available grade	Achieved

Guidance Information

1 Unit standard 29654, *Demonstrate knowledge of and interpret mechanical engineering drawings and geometric tolerancing* is recommended for entry into this unit standard.

2 Reference
NZS/AS 1100.301:1985, *Technical drawing - Architectural drawing*.

3 Definition
Interpretation in this unit standard is taken to mean the explanation of the meanings in practical terms of features shown graphically in the drawing.

Outcomes and performance criteria

Outcome 1

Read and interpret HVAC system drawings.

Range interpretation from three supplied drawings.
drawings include – ducting drawings, mechanical services layout, piping arrangements, schematics, block schematics.

Performance criteria

1.1 Different types of lines are interpreted.

Range visible at low level, visible at high level, concealed at high level, concealed at low level, vertical concealed, vertical visible, external.

1.2 Different types of pipe and ducts are interpreted.

Range material type, round, square, uninsulated, insulated.

1.3 Symbols and abbreviations relating to system components are interpreted.

Range system components include – cooling towers, air handling units, cooling and heating coils, fans, furnaces, pumps, dampers, filters, compressors, condensers, chillers, controllers, sensors, diffusers, evaporators, valves, meters, grilles, ducts, air drives, fan coil unit.

1.4 Associated information is interpreted.

Range associated information includes – air flow, water flow, pipe pressure, component manufacturer's designations, directional characteristics.

Planned review date	31 December 2022

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	16 July 2010	31 December 2022
Review	2	26 October 2017	N/A

Consent and Moderation Requirements (CMR) reference	0013

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

Comments on this unit standard

Please contact Competenz qualifications@competenz.org.nz if you wish to suggest changes to the content of this unit standard.