

Title	Demonstrate knowledge of computer aided design in the industrial textile fabrication industry		
Level	4	Credits	2

Purpose	People credited with this unit standard are able to: demonstrate knowledge of computer aided design (CAD); and describe CAD plotters used in the industrial textile fabrication industry.
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Classification	Industrial Textile Fabrication > Industrial Textile Fabrication Core Skills
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Available grade	Achieved
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Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable manufacturer's information, company requirements, industry guidelines and legislative requirements. This includes the knowledge and use of suitable tools and equipment.
- 2 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the Health and Safety at Work Act 2015; and any subsequent amendments and replacements.
- 3 Definitions

Company requirements refers to instructions to staff on policy and procedures that are available in the workplace. These requirements may include – company policies and procedures, work instructions, product quality specifications and legislative requirements.

Industry guidelines refers to those practices and procedures commonly used as standard procedures to produce items of acceptable merchantable quality in the industrial textile fabrication industry such as related textbook descriptors.

Manufacturer's information refers to technical information for a machine or product detailing operation; installation and servicing procedures; manufacturer instructions; technical terms and descriptions; and detailed illustrations.

Suitable tools and equipment refer to industry approved tools and equipment that are recognised within the industry as being the most suited to complete the task in a professional and competent manner with due regard to safe working practices.
- 4 CAD related textbooks can be sourced from a local book retailer, school or polytechnic library, or the public library lending service; useful websites include but are not limited to Amazon.com <http://www.amazon.com>; local public library websites; Techbooks Ltd <http://www.techbooks.co.nz>; Whitcoulls <http://www.whitcoulls.co.nz>.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of CAD.

Performance criteria

- 1.1 Advantages for the industry in the use of CAD are described.
- 1.2 The principles of CAD are described.
- Range modelling space, coordinate system, scale, primitives, nurbs, macros.
- 1.3 Types of CAD software are described in terms of their use in the industrial textile fabrication industry.
- Range 2D and 3D, mainstream, specialised.
- 1.4 Procedures for producing drawings for the industrial textile fabrication industry are described.
- Range multi-view orthographic drawing including full, part, aligned and removed sections; fully detailed and dimensioned drawing with conventional symbols.

Outcome 2

Describe CAD plotters used in the industrial textile fabrication industry.

Performance criteria

- 2.1 Plotting tables and their operation are described.
- Range vacuum tables, marking, cutting.
- 2.2 Plotting software is described.
- Range nesting, single drawing.

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	26 March 2007	31 December 2023
Rollover and Revision	2	27 January 2015	31 December 2023
Review	3	25 November 2021	31 December 2026
Review	4	29 August 2024	31 December 2026

Consent and Moderation Requirements (CMR) reference	0014
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.