

40135**Sew a variety of materials using industrial sewing machines**

Kaupae Level	3
Whiwhinga Credit	9
Whāinga Purpose	<p>This skill standard is intended for people who want to learn to sew a variety of materials using industrial sewing machines. These machines are used in a variety of sectors and the context will be provided through different learning experiences and assessment tasks.</p> <p>This skill standard can be used in qualifications or other credentials that incorporate industrial sewing skills.</p>

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Set up an industrial sewing machine to sew a variety of materials.	a. Select the correct needle for the type of material.
	b. Select the appropriate thread type and weight.
	c. Set the correct machine settings.
2. Explain how the construction and properties of a variety of materials can affect sewing decisions.	a. Explain how to choose the appropriate seam finish.
	b. Explain how to handle and manipulate different types of material.
	c. Explain how to choose interfacing and stabilisers.
3. Explain other special considerations when working with a variety of materials.	a. Explain how to work with directional prints.
	b. Explain how to work with nap or grain.
4. Sew seams on a variety of materials using an industrial sewing machine.	a. Place the material pieces together aligning the edges and any notches.
	b. Sew straight and curved seams ensuring that stitch formation threads are even, and stitch density meets product specifications.
	c. Sew seams ensuring seam allowance is consistent and material sits flat without puckers.

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
5. Join dissimilar materials using an industrial sewing machine.	a. Place the material pieces together aligning the edges and any notches.
	b. Sew straight and curved seams ensuring that stitch formation threads are even, and stitch density meets product specifications.
	c. Sew seams ensuring seam allowance is consistent and material sits flat without puckers.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

Complete all tasks using industrial sewing machines.

Finish all tasks cleanly, removing loose threads using snips or scissors as required.

All tasks should be carried out in accordance with product, style or garment specifications, workplace performance criteria and workplace procedures.

Assessment evidence can be from a work-based or classroom environment.

Evidence must include:

- Machine set up for at least three different materials
- Explanations for at least three materials with different properties
- Seams sewn using at least three different types of materials
- Three examples of joining dissimilar materials.

Definitions

Dissimilar materials refers to two completely different types of materials, such as a heavy wool with a lining.

Industrial sewing machine refers to lockstitch, overlockers and any other commercial or industrial machine used for stitching.

Lockstitch is sometimes known as a plain sewer or single needle and refers to the traditional or standard type of stitch produced by industrial and domestic sewing machines.

Materials refers to fabric and fabric-like products that are sewn using industrial sewing machines, such as georgette, satin, plush, jersey knit, polyester, and canvas.

Overlock is sometimes known as overedge and can also include safety stitch and mock safety stitch machines. These machines have knives fitted and can cut fabric to neaten the fabric edges as these are being sewn.

Product, style or garment specifications refer to the documentation that accompanies each manufacturing order. This documentation sets out the fabric to be used for the product, the size range of the order, the garment assembly sequence, garment finishing procedures, and the garment component specifications.

Workplace performance criteria refer to the expected standard and speed of performance as set by the quality control management in the candidate's workplace. These criteria are determined by the construction of the garment, the fabric being used and the quality standards that apply in the candidate's workplace. These expectations must be explained and made available to the learner prior to assessment.

Workplace procedures refer to the verbal or documented procedures for performing work activities and include health and safety, operational, environmental, and quality management requirements. They may refer to manuals, manufacturer's specifications, codes of practice, or policy statements.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content

- Material types and their properties, such as weight, thickness, weave, stretch, drape, movement and texture.
- Needle type and size based on fabric weight and weave.
- Thread type and weight for the fabric and sewing project.
- Match the thread weight to the fabric weight for balanced stitching and seam strength.
- Machine settings, including stitch length, tension, machine foot, and foot pressure.
- Seam finishes, such as overlocked seams, French seams, flat-felled seams, and bound seams.
- Handling techniques to prevent stretching, distortion, puckering, leaving marks or causing damage.
- Choosing the appropriate type and weight of interfacing based on the fabric and desired results.
- Sewing seams to cope with nap or grain.
- Matching patterns for visual appeal.

Rauemi | Resources

Legislation, regulations and/or industry standards relevant to this skill standard include but are not limited to:

Health and Safety at Work Act 2015.

Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this skill standard will take precedence for assessment purposes, pending review of this skill standard.

Legislation can be accessed at: <https://www.legislation.govt.nz>.

Pārongo Whakaū Kouna | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Hanga-Aro-Rau Engineering, Manufacturing and Logistics Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Manufacturing > Clothing Manufacture > Apparel Cutting and Sewing
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0030

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	29 August 2024	N/A
Kōrero whakakapinga Replacement information	This standard replaced unit standards 2746 and 2747.		
Rā arotake Planned review date	31 December 2029		

Please contact Hanga-Aro-Rau Engineering, Manufacturing and Logistics Workforce Development Council at qualifications@hangaarorau.nz if you wish to suggest changes to this skill standard.