

Title	Replace dynamic seals in machines and equipment		
Level	3	Credits	8

Purpose	People credited with this unit standard are able to prepare for seal replacement, and replace and test dynamic seals.
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Classification	Mechanical Engineering > Maintenance and Diagnostics in Mechanical Engineering
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Available grade	Achieved
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Entry information	
Critical health and safety prerequisites	Unit 21912, <i>Apply safe working practices on an engineering worksite</i> , or demonstrate equivalent knowledge and skills.

Explanatory notes

- 1 Reference
Health and Safety in Employment Act 1992.
- 2 Definition
Industry practice – safe and sound trade practices generally accepted by competent persons within the mechanical engineering industry.
- 3 Range
Dynamic seals applicable to this unit standard may include but are not limited to: lip ('O' ring, standard and multiple lip, cup, J, chevron); gland packings (braided, metallic, synthetic, segmented; ribbon, flat, square, round, moulded, dry, lubricated, for high/low temperature/pressure, gases, liquids, and solids application); mechanical; and labyrinth. Material types include: carbon, stellite, and neoprene. Evidence is required for the selection and replacement of at least three different seals.

Outcomes and evidence requirements

Outcome 1

Prepare for seal replacement.

Evidence requirements

- 1.1 Type of seal to be replaced is identified in accordance with industry practice.

- 1.2 Sealing principles relevant to the seal type and intended usage are described.
- 1.3 Tools and replacement method are determined relevant to seal assembly.

Outcome 2

Replace and test dynamic seals.

Evidence requirements

- 2.1 Seal assemblies are removed in accordance with industry practice.
- 2.2 Seal surfaces and seal assemblies are inspected for damage prior to seal fitting in accordance with industry practice.
- 2.3 Seals and other replacement parts are prepared in accordance with industry practice.
- 2.4 Seal assemblies are fitted to machine or equipment and adjusted in accordance with industry practice.
- 2.5 Seal assemblies are tested for performance with specification in accordance with industry practice.
- 2.6 Records for seal replacement are completed in accordance with industry practice.

Replacement information	This unit standard was replaced by unit standard 30285.
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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.

This unit standard is expiring

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 October 1994	31 December 2011
Revision	2	14 April 1997	31 December 2011
Revision	3	5 January 1999	31 December 2011
Revision	4	18 September 2001	31 December 2011
Review	5	28 April 2003	31 December 2011
Revision	6	25 July 2006	31 December 2011
Rollover	7	20 June 2008	31 December 2014
Review	8	15 April 2011	31 December 2022
Review	9	20 July 2017	31 December 2022

Consent and Moderation Requirements (CMR) reference

0013

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

Please note

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.